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MEDICO-SURGICAL SUGGESTIONS

AUGUST 1941.

No. 8.

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MEDICO-SURGICAL SUGGESTIONS

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ABSCESS OF THE LUNG *

BY P. ARUNACHALAM, M.D (MAD.), M.R.C.P. (LOND.),
T.D.D. (WALES), D.M.R. (ENG.)

*Physician, Stanley Hospital and Professor of Therapeutics and
Clinical Medicine, Stanley Medical College, Madras.*

Abscess of the Lung is of very great interest to private practitioners as its diagnosis is apt to be very easily missed.

Definition—Abscess of the lung is a condition where there is sup-
puration of the lung with destruction of the lung parenchyma and is
non-tubercular in origin.

Historical.—This disease has been known for a long time and has
even been described by Hippocrates, the father of medicine. His
idea of pathogenesis was, that it resulted from aspiration through a
bronchus. He even described pyo-pneumothorax as a complication
and open pneumothorax as one form of treatment.

Incidence of the disease.—The lecturer has seen about 25 cases in
his hospital practice during the last three years and about two cases
in private practice.

Age.—No age is exempt but most commonly it is found in adults
after 25 years of age. The lecturer has seen a case in a man aged 72
years. It has been described in books as being frequent in children
but he has not seen a child affected yet.

Sex.—The disease is more prevalent in males.

Causes of suppuration of the lung.—Common causes are—

- (a) Penetrating injuries of the chest;
- (b) Bronchiectatic abscess; the suppuration in bronchiectatic
cavities spreads to the surrounding pulmonary tissue,
and results in abscess of the lung.

The following are among the rarer causes:

- (c) Post-pneumonic abscess; this occurs as a complication of
lobar pneumonia and is very rare.
- (d) Metastatic abscesses are seen in surgical practice as in
acute osteomyelitis, suppurative otitis media and

* Lecture delivered under the auspices of the Madras Branch of Indian Medical Association.

pyæmic resulting from an infected thrombus lodging in the lung.

- (e) Typhoid abscess :
 - (f) Suppurating cysts, like hydatid cysts, congenital cystic disease of the lung, etc. ;
 - (g) Actinomycosis of the lung ;
 - (h) Bronchogenic carcinoma: due to obstruction in the bronchus, the distal portion of the lung collapses and suppuration starts.
 - (i) Abscess spreading from a subdiaphragmatic focus.
 - (j) Amoebic abscess; extension into the lung results either from below, i.e., from the liver or through the blood stream.
 - (k) *Aspiration abscess.*—This type of abscess occurs after operations on the tonsils, adenoids, tongue and the larynx under general or local anæsthesia. The septic material gets aspirated into the lung through the bronchus and the condition starts 4 or 5 days after the operation. It is reported to be common in other countries. At the King George Hospital, Vizagapatam among 10,000 cases of tonsillectomy only one case of pulmonary abscess occurred, which agrees favourably with the statistical figures of the E.N.T. department of Italian hospitals and the Mayo Clinic. How abscess occurs in these cases is yet a controversial matter. It is thought by some that the blockage of a small bronchial tube by septic material or blood clot, leads to the collapse of the corresponding alveoli and the micro-organisms produce the suppuration. Others think that the abscess is produced by septic emboli reaching the lung through the blood stream from the operated areas. Experimental work on animals shows that aspiration alone does not give rise to abscess, but if in addition to a blocked bronchus emboli are introduced, an abscess of the lung results. Aspiration with embolism seems to be the prevailing thought.
- Sometimes abscess of the lung occurs after operations in other parts of the body for example, pelvic operations, tooth extractions, etc. The lecturer has seen a lung abscess five days after a tooth extraction. Immediately after tooth extraction a large number of micro-organisms are released into the blood stream and are carried to the lung where abscess results.
- (1) *Idiopathic or cryptic abscesses.*—In these cases no obvious cause is found but some history of septic trouble above the neck, such as chronic otitis media, chronic nasal

catarrh, antrum or maxillary sinusitis, or asthma or chronic bronchitis is always present. In other cases there is no history of any obvious trouble at all. In most of these cases a damaged lung is the predisposing cause.

Pathogenesis.—Bacteriology of the sputum.—The sputum in most cases is very foul but in a few cases one may not detect any smell at all.

If sputum is cultured, virulent hæmolytic streptococci, spirochaetes, staphylococci are grown. Pus removed through a bronchoscope has on culture shown the predominant organisms to be staphylococci. But it is known that neither streptococci nor staphylococci produce foul sputum. Is the foulness due to suppurating lung tissue or is it the product of other organisms? American workers cultured the sputum on anærobic media and found a special organism called the *Bacillus Melamogenicum* growing in symbiosis with streptococci and staphylococci and producing in experimental animals the foul pus. This organism is normally found in tonsils, pyorrhœa alveolaris, etc., and known definitely to produce necrosis. The bacteriology of the sputum therefore is still controversial.

The formation of abscess depends on local and general resistances. If both are good, an acute pneumonitis results. If the local resistance is bad and the general good, a lung abscess results. But if the local resistance is good while the general is bad, a lobar pneumonia results. On the other hand if both the local and general resistances are bad, septicæmia results and the patient dies.

Pathology.—In the postmortem room one might see in the lungs either multiple abscesses or a single solitary abscess. The abscess cavity may be situated in any lobe. Inside the abscess cavity one might find pus and the abscess wall lined by a pyogenic membrane while surrounding is an area of pneumonitis. In patients dead in an early acute stage, one might find the pneumonic process to have extended to a larger area and multiple abscesses may be present. The cause of death in such cases is septicæmia. With virulent local extension, gangrene of the lung results. If the abscess cavity be situated near the pleura, pneumothorax, due to rupture of the abscess into the pleural space is the postmortem lesion noticed. Otherwise, pleural adhesions might be formed resulting in the obliteration of the pleural cavity. Other pathological lesions observed sometimes along with abscess of the lung are suppurative pericarditis, interlobar empyema, mediastinal abscess and acute necrosis of the liver and kidney.

In chronic cases the abscess cavity looks like any other abscess cavity enclosed by a fibrous wall. In these cases, abscesses in the brain and pulmonary, osteo-arthritis are likely to be found.

The abscesses are commonest in the right upper zone and with less frequency, in the left lower zone of the lung.

Symptomatology.—The onset is sudden with high fever and very severe chest pain, greater than that in pneumonia. The course of the fever is like that of pneumonia and by the 7th or 8th day the temperature comes down with the patient coughing out a very large amount of very foul sputum. The patient develops at that time a foul breath also. The sputum has a fishy odour and looks like bronchiectatic sputum, being three layered with pus at the bottom, watery fluid in the middle and frothy fluid at the top. The quantity of sputum may be large or small.

The course of the disease.—Just like anywhere else in the body, with the bursting of the abscess, the patient may be alright. On the other hand, the patient may recover for the time being and the temperature might shoot up suddenly one day and with subsequent evacuation of the pus recover. This cycle of events might be repeated. Sometimes after repeated exacerbations of the disease the patient ultimately recovers. In very bad cases, the patient may die of septicæmia. It might extend to the other lung or burst into the pleura, resulting in pyo-pneumothorax. In chronic cases, a septic lung is the finale, the patient getting slight temperature now and then and bringing out sputum as in chronic pulmonary tuberculosis. There might be mild or severe hæmorrhage as in tuberculosis, due to rupture of vessels running across the abscess cavity.

Physical signs.—On inspection one detects diminished movement on the affected side. On palpation increased warmth is felt on the affected side. On percussion there is definite loss of resonance. Auscultatory signs vary. Sometimes there is nothing particular except absent breath sounds at other times one might elicit signs of cavitation on the affected side. The signs depend on the condition of the lung at the time of examination.

X-ray.—If antero-posterior and lateral pictures are taken with the patient standing, the abscess cavity can be made out with a fluid level. The cavity is surrounded by an area of pneumonitis. Sometimes the fluid level is not visible. In the lateral pictures one can see the enlarged mediastinal glands.

Diagnosis.—It is made out by the mode of onset, the physical signs and by the absence of tubercle bacilli in the sputum. X-ray examination of the chest also aids in the diagnosis. When a lung abscess is suspected, needling of the chest should be avoided, as if the abscess be superficial, needling might lead to the contamination of the pleural cavity. Bronchoscopy is an aid when a foreign body is the cause. Radiographs after an injection of lipiodol are not of much use in diagnosis as lipiodol does not enter the abscess cavity due to the blocking of the communicating bronchus.

Differential diagnosis.—During the acute stage, the condition is often mistaken for influenza or acute lobar pneumonia or pneumonitis. Unless one obtains the previous history, it is very difficult to make out the cause. The general condition of the patient and the acute chest pain, more on one side favour a diagnosis of lung abscess.

When once the abscess has burst, the following conditions have to be eliminated; (1) *Chronic pulmonary tuberculosis.* Repeated examination of the sputum for tubercle bacilli and X-ray examination will help. As elastic tissue in the sputum is present both in tuberculous and lung abscess, its presence is not any diagnostic help. (2) *Bronchiectasis.* This condition runs for years and the patient brings out, especially in the early mornings, large amounts of sputum. (3) *Purulent Bronchitis.* It is a very rare condition and there are very few or no lung signs. (4) *Empyema.* (5) *Malignant disease.* The previous history, bloody sputum, X-ray of chest are of help. Lipiodol skiagrams are of no use. Bronchoscopy with biopsy of the material will settle the diagnosis. (6) *Congenital cystic lung.* Patient is apyrexial. It is chronic for years and X-ray helps very much in the diagnosis.

Prognosis.—The resistance of the patient, extent of the lesion and the virulence of the infecting organisms are to be considered in casting the prognosis.

Treatment.—As each case is a study by itself, a line of treatment has to be chalked for each case.

(1) *Prophylaxis.*—Operations should be performed with rigid attention to asepsis and in the presence of severe sepsis, all operations should be postponed.

(2) *Curative Medicinal treatment.*—In the acute stage treatment of the condition is like that of lobar pneumonia with M. & B. 693, or sulphathiozole. After the abscess has burst, its drainage should be effected. Easy drainage through the bronchial passages is effected by means of postural methods which require a knowledge of the exact location of the abscess. An irritating cough usually accompanies the postural drainage in the early stages.

Various drugs have been used.

(a) Creosote, either by mouth or by inhalation. (b) Iodine, intravenously. (c) Calcium gluconate (d) absolute alcohol starting with 0.5 cc. in 5 cc. of water and gradually increased to 1, 2, 3 and 4 cc. in 5 cc. of water intravenously (e) Autovaccine.

In a few cases bronchoscopic drainage is beneficial. Medical diathermy or high voltage X-ray therapy might be used with advantage. At the same time good nourishment and hæmatinic tonics must be supplied as there is an associated anæmia due to sepsis.

Surgical Treatment.—This form of treatment is of recent origin. Indications: (1) treat all cases medically for at least 8 weeks and if after that there is no improvement, or if the lesion extends as seen

in the X-ray pictures or if there is an inefficient drainage of the pus, institute surgical treatment. (2) If the abscess is superficial operate as early as possible.

Definite localisation of the abscess by a series of pictures, stereoscopic or by means of tomography which locates up to $\frac{1}{2}$ to 1 cm in three dimensions, is essential for successful operation. After draining the abscess fully by postural treatment, the patient is handed over to the surgeon. Good anaesthesia and good post-operative treatment are also essential. Pyo-pneumothorax is treated surgically.

Artificial pneumothorax is not safe as it leads to the bursting of the abscess and the formation of pyo-pneumothorax. It can be done if the abscesses are deep seated and especially those situated at the hilum and in patients who have repeated pulmonary hæmorrhage. By the collapse of the lung the abscess is not drained completely. So artificial pneumothorax is not the proper treatment. There is also the danger of the extension of the disease.

Phrenic crush :- If the abscess is chronic and basal, one can try it. It just pushes up the diaphragm and is not of much help.

PLEURISY.

Dry and with Effusion

BY D. R. DHAR, M.B., D.T.M. (CAL.), M.R.C.P. (LOND.)

DRY PLEURISY.

Diagnosis. Friction rub, which remains constant after coughing, rather superficial, to and fro, with stitch at the side, aggravated by respiration, cough and so on, are suggestive. There may be pain on the sides but without pleuritic rub. The diagnosis of diaphragmatic pleurisy is often troublesome and always difficult. Primary dry pleurisy is usually tuberculous in origin. Previous good health, satisfactory general condition and mild symptoms are not generally to be regarded as sufficient evidence against this diagnosis. "Primary dry pleurisy, as indicative of tuberculosis, is equal in significance to primary pleurisy with serofibrinous effusion or hæmoptysis only of a clear sky". Pre-eruptive stage of herpes-zoster rarely may give rise to marked pain which may be difficult to diagnose, unless the eruptions come out. Skiagram of the chest, pulse, respiration, temperature, weight records may be helpful in diagnosis. Differentiation has to be made from intercostal neuralgia, pleurodynia and other local causes of pain.

TREATMENT

Pain. The most important item in the treatment at the acute stage is the relief of the pain.

Fixation etc. Next to rest in bed, the first thing usually done, is to completely limit the movement of the affected side of the chest in *position of expiration* by strapping from the spine to the sternum with adhesive plaster of a suitable type. Before applying it, the hairs if present, should be shaved off and spirit and powder applied. The strapping should not be allowed to remain for more than seven days at a time. Care must be taken not to abrade the skin while they are removed.

Warmth locally. One of the simple methods to relieve pain is by local application of warmth or by counter irritation or better by both. One may choose any one or several of the following, cataplasma kaolini. (Antiphlogistine group), hot water bottles, linseed poultice, hot salt or sand bags, fomentation dry or moist, though the first method is preferred. Mustard plaster, brisk rub of either wintogeno or Vicks' vapo-rub etc., preceded and followed by fomentation, are of relief.

As the pain may keep the patient awake or prevent his rest one may give a powder like the following at bed time to promote sleep.

Luminal	gr. 1
Aspirin	gr. 3
Phenacetin	gr. 2
Sodii Bicarb.	ad.gr. 10

One powder, every six hours.

When the patient is *constipated* one may add phenolphthalein or hydrarg subchloride half a grain in each of the above powders, till three are taken. If *insomnia* is present half a grain of luminal to each powder thus making a total of one and a half grain in all, for an adult; may be of service.

Dover's powder in five to ten grain doses is a useful remedy. But its constipating effect should be counteracted by adding some suitable laxative like aloin half a grain or phenolphthalein or hydrarg-subchloride in grain one to two. But in all cases where hydrarg subchloride is prescribed the condition of the teeth needs be gone into carefully. Because in bad or aching teeth it is poorly tolerated and often makes the pain worse.

In very protracted cases about three to six leeches applied locally are of some use. But this is not liked by all patients.

If the pain keeps the patient awake in spite of the above lines of treatment, morphine and atropine hypodermically in $\frac{1}{3}$ and $\frac{1}{150}$ of a gr. respectively or in smaller doses may have to be tried. Heroin $\frac{1}{12}$ gr. or omnopon $\frac{1}{6}$ to $\frac{1}{4}$ gr. or eukodal one tablet orally or an ampoule given hypodermically relieves the pain of the patient. Another method of relieving pain is to infiltrate the parietal pleura,

over the most painful area with about ten to twenty c.cm. of a one per cent. solution of novocain. The same technic is followed as in cases of anæsthetising the pleura either during an artificial pneumothorax or exploratory puncture or paracentesis thoracis.

The more important item in the general treatment consists in giving the patient *absolute rest* even if he is afebrile and the general signs and symptoms do not warrant it. This complete rest period should extend at least upto two weeks in afebrile cases, but in cases with fever the patient should not be allowed to leave the bed at least for two to four weeks after complete subsidence of pyrexia. The sputum when present should be examined regularly for acid-fast bacilli. A skiagram of the chest may divulge lesions which were missed by the clinical examination. Regular pulse, temperature and weight charts are of distinct use to keep a watch on the case.

Preliminary evacuation of the bowels should be ensured as in all other acute febrile states.

Diet. At the beginning when there is not much inclination for food, only fruit juice, milk or its preparations, glucose etc., need be given. Latter on maintenance of nourishment of the patient is of importance. For this the dieto-hygienic regime discussed under pulmonary tuberculosis should be advocated.

Convalescence. The patient should be very careful about his health for at least two years, because the risks of development of frank tuberculosis is great during that period.

The only guides to assess the progress of such cases are serial radiograms taken every few months, regular charts of oral temperature noted every four hourly, pulse and weight records and so on. The sputum should always be examined carefully, every few days, if not daily. We often see cases in practice who show recurrent pleuritis with fever but without any evidence of lung involvement, as shown by skiagram or clinical evidence or by sputum examinations. These cases are usually tuberculous in origin and as such should receive the same care and treatment as a subject of frank tuberculosis.

PLEURISY WITH EFFUSION.

Diagnosis. The most important diagnostic points are displacement of the apex beat, absence of vocal fremitus and complete dullness. Fullness of the intercostal spaces, impaired mobility, resistance on palpation are not exclusively found in this condition alone, but when associated with the first group of signs and symptoms, are diagnostic. This abnormality has got to be differentiated from fibroid disease of the lung, massive pneumonia, malignant growths, aneurysm, massive collapse of the lung, pericardial effusion and others. Exploratory puncture where the signs and symptoms suggest may clinch the diagnosis. Skiagram of the chest is of definite use for this purpose.

Exploratory Puncture. The best site for puncture is either the fifth intercostal space in the anterior axillary or sixth space in the mid axillary or seventh space in the posterior axillary or in scapular line in the space just below the scapula. It is mistake to go too low for this exploratory puncture.

In a two or better five c.cm. syringe, with a fine but long hypodermic needle, are taken two to four c.cm. of a two per cent sterile solution of novocaine. The skin having been sterilised by tincture of iodine, the needle is inserted horizontally just beneath the epidermis and a bleb of novocaine made. Then the needle is pushed down more or less vertically and the infiltration of the tissues goes on by gently pushing down the piston and spirting out the local anæsthetic as the needle passes forward. Care is taken to insert the needle just above the upper margin of next rib, because if allowed to graze the inferior border of the upper rib in an interspace, there is risk of injury to the intercostal vessel and nerves which lie in the groove at the inferior border of the rib. The tissues are thus thoroughly infiltrated by millimeters till the lessened resistance met by the needle shows that the parietal pleura has been punctured. Now once the needle is in the pleural cavity withdrawal of the piston will show the presence and nature of the fluid which flows in. The syringe should be fitted to the needle quite air tight and the latter be not pushed to the root, because it is at the root of a needle, where it gives way most easily. If no fluid comes and empyema is suspected a needle of stout bore should be employed. Once fluid is found in the plural cavity, it may be drained by one of the following methods.

TREATMENT.

Siphonage. The apparatus consists of a big bottle quarter filled with some suitable antiseptic, say one in hundred carbolic or one in thousand hydrarg perchloride solution. A rubber tubing having a wide bore needle fitted at the end, is also filled up with the solution. The bottle should be placed either on a chair or on the floor, but invariably at a lower level than the point to be aspirated. The needle properly sterilised attached to the distant end of the rubber tubing is inserted into the chest wall already novocainised. The other open end of the tubing is dipped under the fluid in the bottle. Now if the patient cough vigorously or moderately, a little of the fluid from the already completely filled up the tube flows down in the bottle kept at a lower level establishing a siphon action and thus automatically the fluid in the chest flows down and the required amount may be allowed to come out. There is another method of siphonage in which instead of using a bottle quarter filled, one uses a bowl or a pan slightly filled with water and the same principles operate as described above. The fluid may easily be aspirated by Potain's aspirator or any other suitable device.

Workers in the line differ in their opinion regarding the amount of fluid to be withdrawn. Scott Pinchin (1934) is of opinion that one should wait for a few weeks, then should only withdraw part of it, unless the symptoms are very urgent. Whereas in Osler's (1935) book, complete and successive withdrawal of fluid is advocated.

But to withdraw so much of albuminous fluid, means, making the serum poor in this fraction of blood, which generally means setting up a condition favourable to the production of œdema and reaccumulation of the effusion specially when the fluid is withdrawn during exudative stage. Hence the fluid should not be withdrawn without due consideration, and preferably when the conservative lines of management have failed to reduce it.

Replacement of Fluid by Air or Oxygen. The fluid effusion is replaced by sterile air or oxygen thus producing a pneumothorax, this air or oxygen in its turn is gradually absorbed, allowing the lung to expand slowly. This according to Gravesen (1935) reduces the risk of subsequent tuberculosis of the lung.

An artificial pneumothorax apparatus is used for the air replacement of the fluid. The great advantage is that the amount of air admitted into the pleural cavity can be measured with this apparatus and the intrapleural pressure controlled by the attached manometer. Whenever possible this should be procedure of choice.

The method.—The artificial pneumothorax needle should be inserted about one to two spaces above the aspirating needle, and that after aspiration has started for some time, thus ensuring that no fluid can run up the tubing of the A.P. needle. Manometer readings should always control the process. Where oxygen replacement is intended, the air bottle is previously filled with this gas.

Another simple method of automatic air replacement. No pneumothorax apparatus is required and this process can be easily utilised in village practice with advantage. A hypodermic needle is inserted, either on the novocainised second or third intercostal space in the mid-clavicular line and covered with sterile gauze. Air is automatically drawn into the pleural cavity as the fluid is aspirated by any of the means discussed above. This is an effective method and is one of the simplest. Generally in such cases withdrawal of one to three pints of fluid usually suffices. As is generally encountered, so also in these cases, withdrawal of even one pint or less, not infrequently, brings the temperature down to normal and the remaining of the fluid gets rapidly absorbed. The apertures made by the needle should be sealed by collodian or tincture benzoin compound and a pressure dressing applied. A dose of some stimulant medicine, or tea or coffee may have to be exhibited to the patient at the conclusion of the operation. Morphine and atropine may have to be given in cases of resulting or subsequent pain. It is always

safe to give an injection of morphine and atropine before paracentesis is started notably in nervous subjects.

Other methods. Though dealing with an exudate not likely to be absorbed very easily by diuretics, diaphoretics and purgatives, yet we are tempted to take resort to them for the first few days. A dry salt free diet, calcium chloride, purges, iodides, salicylates orally, and a high protein diet have caused the fluid to disappear in a number of cases. Some take advantage of the diuretic action of salyrgan for getting the fluid quickly absorbed. Being an exudate it is not always easy to get the fluid thus absorbed.

Conservative treatment should only be adhered to, for a reasonable period, because it is not to be followed when the patient's general condition deteriorates even after proper management. Intravenous injection of iodine solution and calcium gluconate, alternating with each other, twice a week each, has apparently helped in the absorption of fluid. Six to eight injections of each are often adequate. Recently most of our cases did well under this and other measure of therapy.

Injection of the pleural fluid. Some workers favour the subcutaneous injection, of about five to ten c.cm. of the pleural fluid, provided it is free from tubercle bacilli, one every third or fourth day. This is sometimes of use. I have found it also useful in some cases.

Medicinal treatment.

A prescription like the following one, may be of some use.

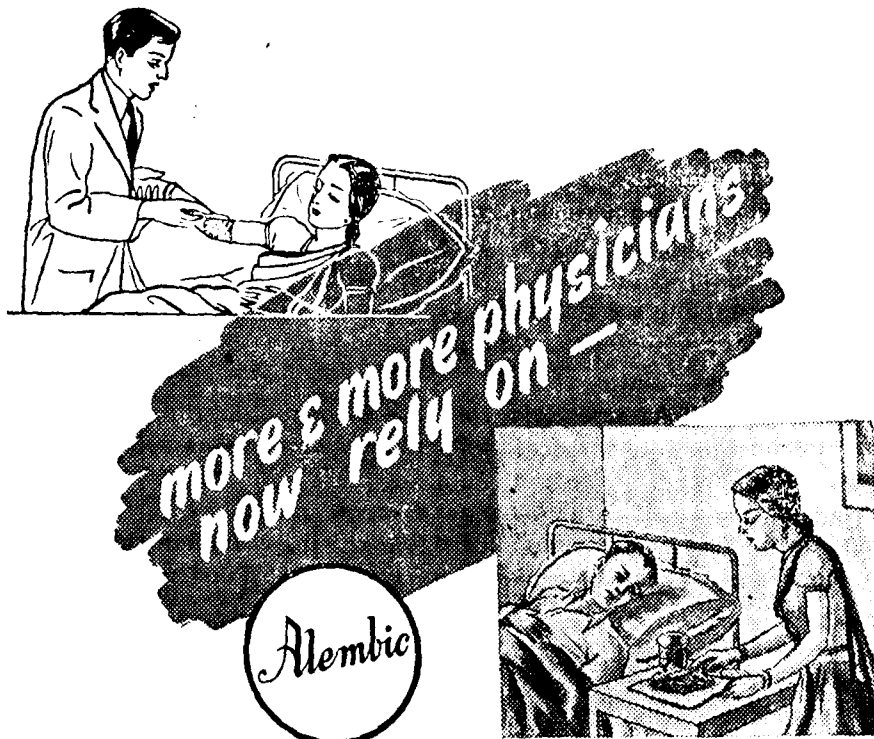
Calcium Iodide	gr. 5
Sodium Salicylate	gr. 5
Sodium bicarbonate	gr. 10
Diuretin	gr. 5
Thiocol	gr. 3
Syrup ferri Iodide	m. 60
Aqua Chloroformi ad. fl. oz.	1

One dose thrice daily.

After care and convalescence. Aftercare in all cases of pleurisy is as important as its immediate management. The underlying basis of 66.3 per cent of idiopathic pleurisy with effusion was, in a big series found to be tuberculous in origin, as diagnosed by skiagram and other modern methods, specially by follow up results.

At least two years should be the period following an attack of pleurisy, that one should warn the patients and their guardians to be careful about. Because it is in this period, that unless great care is taken, they turn to be frank tuberculous subjects.

For this, prolonged convalescence with rest, fresh air, abundance of good nutritious food, codliver oil, butter, milk, eggs, are helpful in getting over the effects of pleurisy easily and to build a



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good resistance. When, the temperature, weight and pulse charts and serial radiograms prove suspicious the question of sending the patient to suitable sanatorium should be seriously considered. High altitudes with a bracing dry climate is usually better than a sea voyage. Such patients of pleurisy generally develop adhesion between the layers of the pleura, making treatment by collapse therapy impossible. Here other surgical lines of treatment may have to be considered, specially when the patient does not improve under conservative lines of management.

CARE OF THE FEET OF NORMAL CHILDREN

HAROLD A. SOFIELD, M.D.

Chicago.

For the purpose of this paper, no attempt will be made to enter into any technical argument as to just what constitutes a normal child or a normal foot. Obviously it is impossible to set a rigid standard for any physiological structure, and any attempt to narrow the definition results in mildly interesting but relatively unimportant verbiage. Several excellent books and papers have appeared recently with comprehensive reviews of the anatomy and the function of the foot. And while differences in opinion exist and are expounded convincingly, fundamentally the foot remains as one of the principal elements of locomotion. Bearing all the weight of the body, made up of a complex series of bones, joints, muscles and ligaments, it is subjected to terrific stresses which must be met at unexpected as well as at expected times. It would more than tax the ingenuity of a structural engineer to design as excellent a piece of machinery to serve its function. Yet there is no part of the body which is no more neglected or more abused than the human foot. The lay person looks on the average foot as an unsightly appendage and for thousands of years the appearance of the foot has been subjected to alterations by almost constant binding or strapping or by forcing it into ill-fitting coverings. The female of the species has not been alone in this attempt to improve upon nature's handiwork for, in the Middle Ages in particular, the men assumed their natural role of peacocks and some of the male footwear of that period would put to shame many of the female creations of today.

Now we are in the age of camouflage in footwear and, while it is true that at this cycle the male footwear is in general satisfactory,

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the female footwear perpetrates atrocities which only the hardest can endure without hobbling or tripping along as though on stilts. Under bridge tables, under the seats of movie theaters, under park benches rest hundreds of shoes while their owners seek a few moments of relief by permitting their feet to escape from the leather and cloth vises, and cautiously they wiggle their toes like birds with broken wings testing the appendages to see if the function is yet intact. Woe to the lady whose feet have reached the limit of endurance and like swollen flood rivers can no longer be confined to the barriers. Then she must beat an ignominious retreat, paddling along in her stockinged feet and carrying the offending shoes in her hands. Such circumstances are far from uncommon. One wonders what diabolical pleasure the designers of women's style shoes derive from their creations. It might well be considered a sadistic tendency were it not for the evolutionary cycle which such creations go through and the hope that eventually either reason or necessity will prevail.

The medical profession as a whole has shirked its responsibility in the care of the feet and has graciously presented the care of one of the most important structures of the body to ill-trained or commercial interests. It may well be considered a reflection on our profession that we either consider it beneath our dignity to care for ordinary ailments of the feet or that we retreat from the difficult situations which arise in treating structures that combine both social and anatomical complications. Yet we bravely assume our natural dictatorship over other structures which combine such elements to much greater degrees. The foot is, of course, only a part of the lower extremity and that of the rest of the body. To try and isolate the foot and its function from the entire body is a grievous error which is often indulged in by amateur shoe salesmen and others not thoroughly versed in comprehensive human anatomy. Quite often we see pitiful attempts made to adapt footwear or other prosthetic appliances to a deformed foot which is in itself secondary to trouble elsewhere, which if properly treated, greatly enhances our opportunities of permanently benefiting the patient. Cases of residual infantile paralysis with marked deformity of the entire extremity, congenital dislocation of the hip, cerebral palsy and many other such troubles are often harmed by well-meaning but uninformed persons attempting to treat the foot as the primary source of the disturbance. All cases of foot disturbances should be thoroughly examined by trained physicians and surgeons with the idea of treating the deformities in all their ramifications.

While it is true that the Chinese realized that in order to change the size of the human foot it was necessary to start altering the foot of the baby, it is also true that in order to properly protect the natural growth of the foot it is necessary to guard the infant

and growing child's foot against dangerous influences. This paper is not directed toward the treatment of foot deformities, but one cannot refuse an opportunity of cautioning the medical profession against delay in treating foot deformities of infants. The old idea of permitting babies with clubfoot deformities to wait at least one year before having treatment started deprived that baby of the most valuable year in which satisfactory correction could be obtained. The time to start treating such cases is as soon as you see them. The first year of life offers much more hope of correction of a clubfoot deformity than any subsequent five-year period. Nor should such deformities be considered lightly. No single orthopedic deformity presents more difficulties than an advanced clubfoot. Even after primary correction has been obtained, constant observation must be maintained for subsequent relapse is common. All foot deformities of infants or children should be studied carefully and corrective measures instituted immediately. The old idea that the child will outgrow many foot deformities is not only dangerous but pernicious. Most foot deformities tend to become worse as growth progresses and the only safe way of handling such events is by skilled treatment and observation.

There are, of course, variations from any standard form of any anatomical structure all of which may be considered normal. Some babies feet are long and narrow, other short and fat. In some the front part of the foot tends to turn in, in others a more or less straight line is present. Provided that the weight-bearing lines extend along the recognized physiological points and that unusual rigidity or unusual relaxation is not present, that all the ordinary appendages are present and in usual relationship, the feet may be considered normal. Even at birth, definite bony and cartilaginous structures may be felt and the relationships observed. As the baby grows the pudgy appearance and feel of the foot changes and bony prominences become evident. The toes spread apart, the heel becomes more recognizable and definite longitudinal arching of the inner side of the foot is observable by sight. Such definite arching was present at birth but could only be observed by palpation. As the child develops, the heel continues to become more definite, the longitudinal arch more marked and the lateral spreading of the forefoot in relation to the heel more pronounced. The toes continue to be well spread apart when the child walks; weight is borne on the heel, the outer side of the foot, across the anterior arch and across the heads of the first and second metatarsal bones. Of course, weight is actually borne on all the structures, but the above mentioned structures show most of the external evidences of weight bearing and serve as criteria for observation. Feet which show unusual rigidity, unusual relaxation, unusual lines of weight bearing or faulty positions cannot be considered normal and reserve special attention.

How can we preserve the normal foot and encourage its development as a first class useful structure? More and more we are being consulted by mothers who do not believe there is anything wrong with their children's feet but who are wholly confused by contradictory advice as promulgated by magazine articles and competing shoe salesmen. Any observer can choose a group of women's or children's magazines and find contradictory advice by so-called eminent authorities. Recently one such article told of the dangers of permitting a baby to wear soft shoes—the shoes must be hard-soled with adequate support for the tiny, soft structures. Another equally popular magazine carried an article warning of the dangers of the supporting shoe on babies since it weakened the foot by its support and did not permit the muscles to get proper exercise. Most confused of all is the parent who commits the error of going into two stores specializing in children's shoes and hearing the competitors outline the disastrous results which will ensue if the others wares are purchased. What can we tell the parents of the child with relatively normal feet? Should we advise full shoes, oxfords, hard soles, arch support features, round toes, moccasins, rubber-soled shoes or what.

A few simple rules based on common sense, anatomical and physiological sense and observation may be of profound value: As Alexander Pope wrote.

"Tis education forms the common mind;

Just as the twig is bent the tree's inclined."

This is of practical value here for, as we can alter the form of adult feet by confining the infant foot, so can we permit the normal foot to develop properly by restraining its development as little as possible. What excuse is there for immediately putting full hard-soled shoes on babies? What protection do the normally developed structures need? The baby starting to walk seldom pounds on hard floors, but on rugs and pads in the play pen. It is doubtful if hard floors would be injurious at any rate. The finely balanced mechanism of the foot needs unconfined exercise in order to develop the intricate network of muscles and strengthen the ligaments. Going barefoot or with socks or booties or moccasins is the best method of permitting foot development.

When should real shoes be put on? Climate permitting, real shoes should be worn only when the neighbours become too persistent about the mistreatment of the child. We are living in a social environment and must subscribe to the minimum of its dictates. So shoes must be worn. These should be as soft and flexible as possible—oxfords preferred. Permit as much muscle play as possible. The least heel available the better. The idea that girls need more height of the heel than boys is another superstition with no foundation whatever. Not so many years ago, the reverse was believed to

be true and boys' heels were higher than girls'. Keep the heels as close to the earth as possible. Shoes should be cut full and plenty of toe room available. If the edge of the oxford gaps across the instep or under the lateral malleolus, it is of little consequence. The size of shoes should be changed frequently as the child grows.

Under no circumstances should shoes be fitted with an effort made to keep the foot from spreading. The normal foot should grow to its normal size and shape and no effort of molding made. As soon as we tamper with the architecture of the normal foot by attempting to limit its growth in any direction we are courting trouble. Stay away from arch supporting features unless the feet are abnormal. Rigid arch supports do weaken normal feet and prevent proper muscular, bony and ligamentous development and result in weak feet. Permit the child to go barefoot if conditions are satisfactory. The price of shoes is no indication whatever of their value to the feet. More expensive shoes often are made of heavy leather and are too rigid. The shoe should accommodate itself to the foot, not the foot to the shoe. "Hand-me-downs" are often doubly expensive in the long run. It is much safer to buy a pair of cheap properly fitted shoes. Err on the side of having the shoes too large rather than too small. If the shoes are the correct fit, it makes no difference whether the soles are of leather, rubber or composition, or whether they are perforated or solid. Light perforated shoes or sandals are certainly more comfortable in hot weather.

In conclusion, use "shoe sense" for "horse sense." We never think of making any normal structure stronger by restricting its function. Exercise must be available for proper development and shoes built like plaster casts will weaken and not strengthen feet.

SUMMARY:

1. Normal feet of children should not be restricted by stiff shoes.
2. Low, flat heels or no heels at all on shoes are desirable for both boys and girls.
3. The normal foot is benefited by barefoot exercise.
4. Any deviations from the normal should be studied and treated by skilled physicians and surgeons.
5. Feet cannot be considered separate parts of the body but must be viewed as important elements of the entire human mechanism.

—(Illinois Medical Journal, March 1941.)

Extracts.

PRESENT TRENDS IN THE STUDY OF ARTHRITIS AND RHEUMATISM.

R. L. Cecil, M. D., Department of Clinical Medicine, Cornell University Medical College, New York: Rheumatoid arthritis and rheumatic fever constitute two of the last remaining unsolved problems in the field of the infectious diseases. For this reason they possess exceptional fascination to the investigator, so much so that today a small-sized army of bacteriologists, physiologists and chemists is attempting to dispel the mystery which still surrounds the etiology of these conditions.

Students of arthritis are beginning to demand more accurate criteria for the identification of the various forms of arthritis. This is particularly so of rheumatoid arthritis, a disease which has been very much abused so far as terminology is concerned.

In 1931 Allison and Ghormley published a monograph on arthritis in which they stressed the presence of focal collections of lymphoid cells in the synovial membrane. It is true that these collections of lymphoid cells are nearly always present in the synovial membrane of the affected joint in rheumatoid arthritis. However, in a recent study from our laboratory, in collaboration with Angevine and Rothbard, we were able to produce an experimental hemolytic streptococcus arthritis in rabbits which presented a picture practically identical with that described by Allison and Ghormley.

It must be admitted that the theory of focal infection is very much on the wane in so far as it applies to the etiology of rheumatoid arthritis. Two years ago Dr. Angevine and I analyzed 200 cases of rheumatoid arthritis with special reference to the incidence of focal infection. As a result of our study, we concluded that internists must exercise a more conservative attitude regarding infected tonsils, sinuses and teeth than they have in the past, and not leave a decision regarding the treatment of these so-called foci to specialists. Evidently the time has arrived for a complete revaluation of the focal infection theory. Focal infection undoubtedly plays an important part in a number of ailments, and we were convinced from our study that there is a type of infectious arthritis, not rheumatoid in character, which is related to focal infection and which may be benefited by the removal of infected foci.

In 1931 Cecil, Nicholls and Stainsby first noted the presence of specific agglutinins for the hemolytic streptococcus in the sera of patients with rheumatoid arthritis. The percentage of patients showing a positive reaction has varied according to different observers from 40 to 90. In the opinion of the writer, the percentage of cases showing a positive reaction will depend on the duration and

severity of the disease. In well established cases of several years' duration and with active swelling of many joints, the percentage of positive reactions should be about 90.

Recently Findlay and his co-workers have cultivated the pleuropneumonia-like organism from the joint tissue of rats suffering from a type of polyarthritis. They were able to reproduce the disease in mice by injecting into the foot pads filtered or unfiltered suspensions of joint tissue, or cultures grown from them. Sabin has also produced a chronic arthritis in mice by intravenous or intraperitoneal injections of cultures of the pleuropneumonia-like strain he isolated from the brain of a normal mouse. He described this as a progressive, proliferative polyarthritis, resembling rheumatoid arthritis in man. The process often goes on to ankylosis of one or more joints.

So far as treatment of rheumatoid arthritis by medication is concerned, gold salts are now attracting the greatest interest. Intramuscular injections seem to be quite as effective as intravenous injections, and are probably safer. The drug is given in courses in much the same way as bismuth and arsphenamine in syphilis. The usual method of treatment is to begin with 25 to 50 mg. and work the dose up to 100 mg.

The writer has now treated over 200 cases of rheumatoid arthritis with gold therapy. Unfortunately time has not been yet available for a careful analysis of these figures. Like many others, our earlier experiences with gold were discouraging. With increasing experience, however, I came to place a higher value on gold, particularly myochrysine, with which I have done most of my work. I have encountered no serious disturbances in the blood. There have been three cases of exfoliative dermatitis; two have been quite severe. I have seen a few remarkable recoveries and many others in whom improvement was quite striking, particularly when the drug was administered early in the disease. In conclusion, I think it is fair to say that gold therapy marks an important advance in the treatment of rheumatoid arthritis. It is a dangerous agent, but in the hands of an experienced therapist, it can be used with considerable benefit in the treatment of rheumatoid patients.

Fever therapy has been extensively tried and there are now numerous reports in the literature. The results are fairly consistent. The majority of the patients receive temporary relief from fever therapy but relapse later.

A word must be said here about the studies of Hench on the relation of jaundice to rheumatoid arthritis, and its application in the use of bile salts. It has been known for some time that an attack of catarrhal jaundice would produce a remarkable amelioration in the symptoms of rheumatoid arthritis. Hench studied thirty-one cases of atrophic arthritis and fibrositis in relation to jaundice.

In most instances the jaundice was caused by the toxic action of cinchophen, but the patients who had simple catarrhal jaundice expressed similar relief. In the majority of cases, marked reduction of pain and swelling and a striking increase in motion accompanied the more or less complete analgesia, and the rheumatic process appeared to have suddenly become inactive for varying periods, sometimes only for days or weeks, occasionally for months or years. Only a few weeks ago the writer had an opportunity to study one of these cases at close range.

A young woman, aged twenty-four years, with typical rheumatoid arthritis of four years' duration, was put on gold therapy. After she had had about ten injections of sanochrysin, she developed a toxic hepatitis with headache, jaundice and bile-stained urine. The jaundice appeared about two months after the last injection of gold and lasted four to five weeks. Previous to the onset of the jaundice, she had considerable arthritis in various joints, with swollen wrists and ankles, several fusiform fingers, and swelling of the right knee. Within a week or so after the onset of jaundice, the swelling and pain disappeared entirely from her joints and there was complete restoration of function. This period of inactivity lasted three months, when the symptoms in her joints gradually returned to the state they had been in previous to the attack of jaundice. These observations on jaundice and its effect on rheumatoid arthritis have led to the administration of bile salts to patients with this disease. Thompson and Wyatt employed bile salts alone and bilirubin alone without any beneficial effect. However, the combination of bilirubin and bile salts seemed to have a favourable influence on the symptoms. Hench was unable to confirm these observations. Margolis has employed autolyzed liver which, in his experience, produced exacerbation of the symptoms. Davis, working in our Department of Physiology at Cornell, believes that crude liver extract, when given in large doses, has a favourable effect on the course of arthritis, but I have not been able to confirm this observation on a very limited number of cases. Everyone seems to be agreed that jaundice, either natural or experimental, is not a cure for arthritis, but is only a temporary palliative.

Coming now to the subject of rheumatic fever, we find a situation quite similar in many respects to that which exists in rheumatoid arthritis, particularly in so far as studies on etiology are concerned. The disease is still classified as probably infectious, though of unknown origin, and the weight of opinion still favors the hemolytic streptococcus as the causative agent.

Green has recently cultured the throats of patients with acute rheumatic fever and compared his results with cultures from non-rheumatic controls. Hemolytic streptococci were recovered in 58 per cent of the rheumatic cases and from only 30 per cent. of the

nonrheumatic cases. More recently Green claims to have actually recovered hemolytic streptococci from cardiac vegetations of patients dying of rheumatic fever. We have not been able to corroborate this work, however, in our own investigations. A decade ago the writer, in collaboration with Nicholls and Stainsby, recovered streptococci of various types from the blood and joints of patients with acute rheumatic fever. These results, however, have not been confirmed by the recent studies in our laboratory and the previous findings are therefore open to the same criticism that has been made of the positive cultures obtained in rheumatoid arthritis.

So-called virus bodies have been found in the exudates from various cases of rheumatic fever by Eagles, Schlesinger and others of the English school. Until some definite proof of pathogenicity has been established, bacteriologists are not likely to give these studies very serious consideration.

Swift, Moen and Hirst have tried sulfanilamide in the treatment of chronic recurring rheumatic fever. No benefits were noted; indeed, the rheumatic manifestations were intensified. Disappointing results were also reported by Massell and Jones, who treated fifty-eight patients with rheumatic fever, including seven with chorea. Quite negative results have been reported by other observers, and the drug is equally disappointing in the treatment of rheumatoid arthritis.

EXPERIMENTAL ARTHRITIS

Bacteriologists continue to be interested in the study of experimental arthritis. In our own laboratory the writer, in collaboration with Angevine and Rothbard, has recently published the results of extensive study on experimental arthritis in rabbits produced with streptococci and other organisms.

Angevine and Rothbard called attention to the mechanism by which bacteria become localized in the tissues of the joints and eyes. Histologic examinations of sections from the eyes and joints of large numbers of rabbits injected with hemolytic streptococci have clearly demonstrated that when arthritis or cyclitis occurs, the synovial villi and ciliary processes are the most frequent and usually the primary sites of inflammation. By special methods for demonstration of bacteria, it has been shown that bacteria which found lodgment in either an eye or a joint were demonstrable first in the vessels of ciliary processes or synovial villi. A localized synovitis or iridocyclitis is brought about by the localization of bacteria in the synovial villus and ciliary process. These experiments, which give a clearer insight into the pathogenesis of infectious arthritis and iritis, explain why both may occur in association with certain infectious diseases.

The streptococcal theory of arthritis and rheumatism still seems to me to be the favorite theory. Perhaps eventually we may find

that the joints are not actually infected, but become sensitized in some way which we do not yet quite understand. Recently Angevine and Rothbard have returned to this problem and have obtained some interesting results. Rabbits were injected either intravenously or intradermally with heat-killed hemolytic streptococci and subsequently injected intravenously with living organisms. Arthritis was produced in the intravenously immunized rabbits with a smaller number of bacteria than was required to produce the disease in normal or intradermally immunized animals.

In another series of experiments the right knee joints of rabbits received repeated injections of small amounts of either heat-killed streptococci or a nucleo-protein fraction. When the animals were subsequently infected intravenously with living cultures of the same organism, the previously injected joints were more susceptible to infection than were joints that had been injected either with heat-killed staphylococci or horse serum. In these studies, which have not as yet been published, it would appear that the relation of bacterial allergy to joint infection is a subject which has not yet been completely elucidated.

THE ETIOLOGY AND TREATMENT OF SOFT CORNS.

H. B. Macey, M. D., Section on Orthopedic Surgery: Soft corns, situated between the toes consist of softened and at times macerated calluses. These corns usually occur between the fourth and fifth toes but may be found between any two toes, depending on the presence of certain mechanical factors. Their softness arises from their confinement between the toes and from the associated moisture of the feet.

The actual mechanism of formation of a callus consists in pressure on a bony prominence; conditions for such pressure ideally exist between the fourth and fifth toes. The base of the proximal phalanx of the fourth toe commonly is prominent laterally, and bears somewhat of a point; likewise, the distal end of the proximal phalanx of the fifth toe is prominent medially. When improper shoes are worn pressure is applied and a callus may result. This is easily demonstrated by placing the toes in the position they assume when encased in short, narrow-toed, forward-pitching shoes. The symptoms are pain, at times intense, and a tendency to infection; the latter results from trimming and from the use of home remedies and the various corn solvents that are on the market. This apparently innocuous callus may be dangerous to the individual who has a blood vascular disease or diabetes.

Treatment consists of removal of the prominent portion of the phalanx of either the fifth or the fourth toe. Inasmuch as the callus usually is situated over the prominent base of the proximal phalanx of the fourth toe, it seems more logical to excise this prominence than that of the fifth toe. It is important that the prominence be removed so cleanly and smoothly that sharp spicules, which would produce further symptoms, do not remain.

FOUR SIMPLE CYSTOSCOPIC RULES FOR A SUCCESSFUL RESECTION.

BY HENRY S. BROWNE

Prostatic resection has been used long enough now to have proved its worth, and when done properly the results are uniformly good and permanent. To ensure this the author has evolved four simple cystoscopic rules.

Rule 1: With the sheath carefully centered and the verumontanum just visible, there should be no tissue observed to fall into the open end of the sheath when it is rotated in a complete circle. We know that in the hypertrophied prostate all of the obstructing tissue lies between the verumontanum and the bladder. In a few of the larger glands the lateral lobes may extend a short way beyond the verumontanum, but even in these cases when the intravesical portions of the gland are removed, thus relieving pressure from the capsule, they recede toward the bladder and then project only above the verumontanum. So, by the maneuver of careful centering the sheath with the verumontanum just visible, the whole prostatic urethra is under observation. By keeping the sheath centered as it is rotated this view is not distorted as it would be if the sheath were held at an angle. Complete rotation of the sheath allows the upper portions of the laterals to fall into the open end of the sheath, otherwise, they would be held up out of view by the projecting end of the sheath. As long as tissue falls into the open end of the sheath it means that this tissue, if allowed to remain, would fall into the urethra and thus cause further obstruction. After the intravesical portions of the gland have been resected, this maneuver is carried out repeatedly so that tissue is removed rapidly and safely until no more projects into view. If this is done, it usually means that sufficient tissue has been removed to achieve the desired result. The firm, white, irregular appearing hypertrophic tissue is easily differentiated from the concave parallel circular fibres of the capsule. This first rule is the most important, for when its requirements are fulfilled the greatest part of the gland has been resected and what remains usually requires only to be trimmed up.

The next 3 rules require the use of a retrograde telescope. The bladder joins the urethra in the lower half at an oblique angle so it is easy to tell with the foroblique telescope when the prostatic tissue has been removed down to the level of the bladder. However, the junction of the bladder and urethra in its upper half is at more of right angle so that in this area it is not possible with the foroblique telescope to tell exactly when all of the prostatic tissue has been removed down to the bladder level. This is easily ascertained, however, with a retrospective telescope.

Rule 2: On examination with the retrograde telescope the entire circumference at the junction of the operative area and the bladder should show no prostatic tissue projecting into the bladder at any point. This maneuver will readily show any tissue overlooked and this is usually found on the upper part of the lateral lobes. This tissue, if not removed, will fall into the prostatic cavity and cause further obstruction. It is well to remember that water flows through the sheath away from the foroblique but against the retrograde lens. Therefore, the slightest bleeding will obscure the vision with this lens, so that it is necessary for hemostasis to be complete and the water clear in order to be able to see with it.

Rule 3: On examination of the prostatic cavity with the retrospective telescope no tissue should be seen projecting into this cavity at any point. After examining the bladder neck, the cavity left by removal of the gland is carefully observed and any irregular masses of tissue are located and later removed with the working element, for as long as hypertrophied tissue remains it will appear as irregular areas projecting from the capsule. If any of these nodular areas are allowed to remain they are likely to cause further trouble. When they are removed there is a smooth concave cavity, and the circular concave parallel fibers of the capsule can be easily seen.

Rule 4: The verumontanum should be completely visible with the retrograde telescope. If the first 3 requirements have been met, this one follows automatically. It is put in to make sure that the entire prostatic cavity has been examined.

If these rules are carried out, at the end of a resection there can no longer be any obstructing tissue left, and what amounts to a transurethral prostatectomy has been done. Examination several months later often reveals small nodular areas of prostatic tissue, but as the prostatic cavity is so large these do not cause any trouble.

(*Journal of Urology April 1941.*)

Medical Notes and News.

THE MADRAS MEDICAL COLLEGE, MADRAS.

Major-General H. Stott, I.M.S. Surgeon-General with the Government of Madras addressing a large meeting of medical men on Tuesday, 5th August '41, at the Madras Medical College, advised them to volunteer for war service, thus helping in the war effort and incidentally benefiting themselves.

Before the end of this year, the Surgeon-General said, the Army would require not less than 1,000 additional doctors, Graduates and Licentiates, and 500 additional nurses. The response so far, he continued, had been certainly distinctly fair and in the Madras Presidency alone, no fewer than 200 Graduates had received Commissions, a number larger than in any other province in India.

The Surgeon-General, proceeding, said that there were several points in favour of young men joining military service. The first was that they would be supporting the war effort. Secondly, as medical men, they would be providing succour and assistance to the afflicted, the wounded and the diseased. By doing war service they would be getting various advantages: for instance, they would get good food, live in healthy surroundings, have regular physical exercise, acquire discipline and gain wider experience of men and things. So far as the conditions of service were concerned, they were satisfactory from every point of view the question of granting certain additional concessions discussed at the recent Conference at Simla, which he attended, would shortly be announced. But those who liked to join military service need not wait till the announcement was made. They could accept the assurance that the terms were satisfactory and would be given retrospective effect. Those who entered service early would have the distinct advantage of seniority. One point which was particularly gratifying was that it had been decided to give gratuities on retirement to those who were not in the official medical profession, so that they might start private practice.

The Surgeon-General further said that there was a misconception in regard to the appointment of specialists. The number of appointments as Majors was limited; it was only about a hundred and so various points would have to be considered in filling them, and one could not expect to get the appointment on the ground that he possessed the M. D. Degree or had had teaching experience.

Future of Entrants:—As regards the future of those entering war service now, the Surgeon-General said that all appointments for permanent posts in the Provincial Medical Service had now been stopped and the Government were at present only making temporary appointments and after the war every single one of those

holding these temporary posts would be discharged and these appointments would be given to men who returned from war service. He hoped that municipalities and local bodies would also encourage young doctors to go to war service and be prepared to grant them on their return similar conditions. One or two other concessions like the grant of educational facilities for children of those joining military service and grant of study leave, were also under consideration.

In conclusion, the Surgeon-General said that what he required was the type of graduates and licentiates who were ambitious to serve and better their prospects and anxious to gain experience. He wanted particularly members of the House Staff, honorary and paid; and House Surgeons who were willing to join military service, now getting only an allowance of Rs. 25 a month, would get a starting salary of Rs. 450 besides other amenities. In regard to final year students, a proposal was under consideration to advance the date of their examination by three months and those who were willing to join the military service on passing their examination could go through the preliminary stages of enlistment. The matter was under correspondence with the University and a decision would be announced shortly. Other students could join the St. John's Ambulance Brigade and the Red Cross.

Rao Bahadur Dr. A. Lakshmanaswami Mudaliar, in proposing the vote of thanks, said that the question of advancing the date of the examination for final year students was now under correspondence with the University and a decision would soon be announced.

—The Hindu.

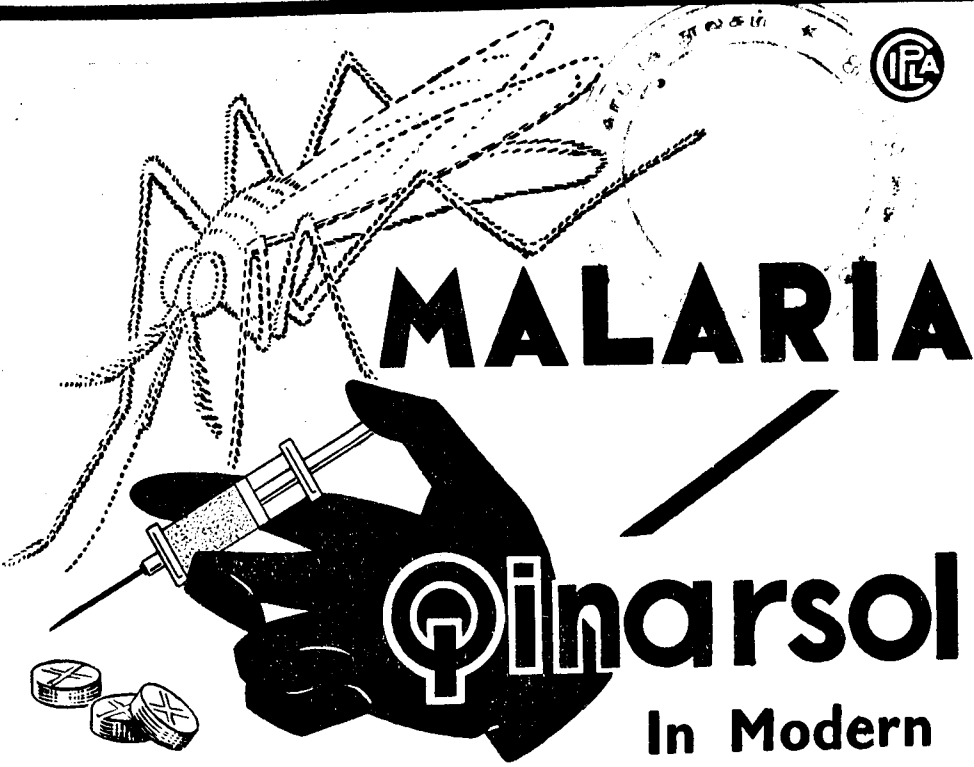
THE KISTNA DISTRICT BRANCH OF THE INDIAN MEDICAL ASSOCIATION, MASULIPATAM.

A monthly meeting was held on Sunday, the 27th July 1941 Dr. C. B. Ethirajulu, M.B.B.S., Assistant District Medical Officer, Kistna, occupying the Chair owing the absence of the President and Vice President.

Among other businesses transacted, it was resolved that all the members of the Kistna District Branch of the Indian Medical Association shall constitute the reception Committee for the ensuing Andhra Provincial Conference to be held at Masulipatam, during Dasara and members were elected to be the office-bearers of the same. At the Clinical Meeting which followed:—

1. Dr. P. Seshagiri Rao, L.M.P. Gudivada, demonstrated an interesting case of a boy of about 8 years with the right hip joint in a flexed position and which could not be extended even under anaesthesia, and discussed the differential diagnosis.

2. Dr. J. Venkataramasarma, M.B.B.S., and L. O., Masulipatam, demonstrated a rare case of "Spring Catarrh" and explained in detail about the treatment of the case.



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3. Dr. A. Narayana Rao, M.B.B.S., Gudivada, demonstrated two cases of (1) Ulcer Tongue (2) Multiple Gummata in Muscle which yielded to treatment with injections of Neosalvarsan and administration of Potassium Iodide. He also demonstrated a case of Gumma Sternoclavicular joint.

4. Dr. K. V. Subba Rao, L.M. & S., Masulipatam, demonstrated a case of Perinephric Abscess in a child aged about 2 years and discussed the differential diagnosis of the case.

The President in his concluding remarks, summarised the salient points of the above papers and clinical cases read. The meeting was concluded at 7 p.m. with a vote of thanks by the joint Secretary.

NOTICE.

The Sixth Maharashtra and Karnatak Provincial Medical Conference will be held, at Poona, under the auspices of the Poona Branch of the Indian Medical Association on the 13th, 14th and 15th October, this year. The main subject for discussion is "Blood-Pressure in Health and Disease." Papers on other Medical Subjects will also be read and discussed. An exhibition of medical products, surgical appliances and interesting specimens is being arranged. All medical practitioners in the Province are cordially invited to attend the Conference.



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