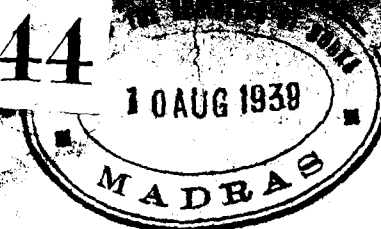


44



844
2085

REGD. No. M. 3809

JOURNAL OF SOUTH INDIAN MEDICINE

JULY, 1939

ISSUED BY THE SOUTH INDIAN MEDICAL UNION, MADRAS

VOLUME VI

NUMBER

The successful treatment of all types of Malaria with



'ATEBRIN'

The institution of treatment with a few injections of 'Atebrin' effects prompt elimination of all symptoms. Continuation of the course with 'Atebrin' tablets (3-5 days) ensures permanent results. Oral administration suffices in uncomplicated cases.

In resistant relapsing cases and to destroy subtertian gametocytes (crescents) rapidly a short follow-up treatment with 'Plasmoquine' or 'Quino-Plasmoquine' is advisable.



Bayer Leverkusen

Importers: **BAYER REMEDIES LTD.** P. O. 542, Bombay

Branches: P. O. 17 Bombay, P. O. 3122 Calcutta, P. O. 142 Lahore, P. O. 76 Madras, P. O. 36 Rangoon



JOURNAL OF SOUTH INDIAN MEDICINE.

(Incorporating the Bulletin of the South Indian Medical Union).

VOL. VI

JULY 1939

No. 4

A STUDY OF TUBERCULOUS DISEASE OF THE JOINTS INCLUDING SPINE IN MADRAS.*

By

N. S. NARASIMHAN, F.R.C.S. (England & Ireland),
(Orthopaedic Surgeon, General Hospital, Madras)

It is the feeling of every doctor that tuberculous disease of joints must be diagnosed early, efficiently and continuously treated adequately, and that a watchful after-treatment is essential.

The co-operation of the family doctor, nurse, midwife, the Surgeon, and the Radiologist is essential.

The following study will be of some value in understanding the types of cases that are being met with in Madras.

ANALYSIS OF THE CASES STUDIED:—

Tuberculosis of Bones and Joints (Excluding spine).

Total ... 106 cases.

Distribution is as follows:—

(A)	Males	74	}	... 106
	Females	32		
(B)	1. Shoulder	3	6. Hip	35
	2. Elbow	18	7. Knee	19
	3. Wrist and carpal bones	14	8. Ankle (including talus)	8
	4. Dactylitis (Spi-na Ventosa)	1	9. Tarsal bones	3
	5. Sacroiliac joints	4	10. Rib	1

* Lecture delivered under the auspices of the Dr. Elizabeth Mathai Endowment 1938-39 for the Madras University.

1. Shoulder:—3 }	Right	2	Males	2
	Left	1	Female	1
Age:	1—10	10—20	20—30	
	0	2	1	

Sites affected and types:—

Head of humerus	...	...	1
Humerus and Glenoid Cavity	...	...	1
Caries Sicca	...	...	1

2. Elbow:—18 cases.	Right	13	Males	11
	Left	4	Females	7
	Bilateral	1		

In 2 cases it was *multiple*. There was tuberculous disease of the *Right Elbow* and *Left hip* in a girl of 7 years and in the other tuberculosis of the *Right Elbow* was associated with disease of the *left knee* in a male of 30 years.

Age:	1—5	5—10	10—20	20—30	30—40	Above
	1	2	4	10	1	0

Types:—

Synovial	...	...	...	6
Osseous	...	...	...	12

Osseous Type—12:—Bones affected were as follows:

1. All bones of the Elbow joint	...	3
2. Lower end of humerus	...	3
3. Upper end of ulna	...	2
4. Upper end of Radius (head)	...	0
5. Lower end humerus and upper end of ulna	...	3
6. Head of radius and upper end of ulna	...	1

Upper end of Ulna:—(6)

1. Olecranon	...	1
2. Coronoid Process	...	1
3. Lesser sigmoid	...	1
4. Greater sigmoid	...	3

I should draw the attention of the readers to the statement made in the Rose and Carles (Edition 1937—Page 747, Volume I under Tuberculous disease of the elbow. "The disease is most common in young adults, commencing usually in the Synovial membrane, especially that of the superior radio-ulnar articulation; the swollen synovial membrane bulges on either side of the olecranon and the tendon of the biceps, and can often be felt over the head of the radius, and the joint presents the typical appearance of white swelling." This is a clinical appearance in the advanced cases in adults but this is not in accord with our findings here or with the findings mentioned in the other text books.

In page 741 of Vol. I of Rose and Carles the following statement occurs, "Tuberculous disease of joints:—In children the disease commences most frequently in the epiphysis *about equal frequency* whilst in adults it may start in membrane or bone."

Boyd "It is a disease of children: it is usually secondary to tuberculosis of adjacent bone; in the adult it is synovial in type; bone tuberculosis has a strong tendency to spread to the corresponding joint".

3. Wrist:—14 cases	Males	10
	Females	4

Right	8
Left	5
Bilateral	1

Age:	1—10	10—20	20—30	30—40	40—50	Above 50
	0	1	6	3	2	2

Types and Sites:—

1. Synovial type	4
2. Wrist, carpal bones and lower ends of radius and ulna	2
3. Wrist, carpal bones and inferior radio-ulnar joint	2
4. Wrist and carpal bones	3
5. Wrist and interphalangeal joints	2
6. Only lower end of ulna	1
7. Wrist and hip joints. 1. (both right—25-F)	14

The two cases associated with the interphalangeal joint lesions were on the right side. One is a female of 27 years with disease of the proximal

interphalangeal joint of the ring finger and the other is a male of 30 years with involvement of the distal interphalangeal joint of the middle finger.

In one case, female of 25 years, tuberculous disease of the right wrist was associated with disease of the hip joint of the right side.

4. *Dactylitis*:—1 case - 25 years - male - with tuberculosis of the left knee.

5. *Sacroiliac joints*:—4 cases { Male 2
Female 2

In two cases the disease was bilateral. One was a 5 years old female child and the other an adult of 30 years. In the latter there was a tuberculous carious condition of the left ileum.

6. Hip:—35	{ Males 24				Right 18	
	{ Females 11				Left 17	
Age:	1—5	5—10	10—20	20—30	30—40	Above 40
	<u>13</u>	<u>7</u>	<u>9</u>	<u>4</u>	<u>2</u>	<u>0</u>
	(Minimum)					

(Minimum age noted 1½ years.)

Types:—

Early	1
Synovial	7
Osseous	27
Head	8
Neck	3
Acetabulum	10
Greater trochanter	2
Head and Acetabulum	4
	27

Of these:—

Pathological dislocation	3
Travelling acetabulum	7
Protrusio acetabuli	2

2 cases had *cold abscess*.

Clinical diagnosis of tuberculous disease of the hip is often difficult in the very early stages: a good radiogram shows changes in the metaphyseal region even in early stages.

Transitory arthritis of the hip joint, osteo-chondritis of the hips (Perthes's) disease, old suppurative arthritis, Coxa Vara due to old injuries which may not be recollected are to be excluded.

The word Protrusio-acetabuli may not be familiar to many. It is a well described condition often not recognised.

I have now noted these changes in two cases of hip joint disease under observation for the past six years.

In 2 cases other joints were also affected. In one case, a 25 years female *Right hip* disease was associated with *T. B. of the Right wrist*. Another case a 35 years female there was disease of the left hip with travelling acetabulum and *disease of the right elbow*.

In one case, a female - 13 years, the *head was forked* with partial absorption and a travelling acetabulum.

In another case an adult male of 20 years with disease of the left hip with travelling acetabulum, there was *paresis* of both the lower limbs.

There was one case with a *history of trauma* 6 months ago and there was tuberculosis of the right hip commencing in the greater trochanter.

7. *Knee*:—19 cases { Male 15
Female 4

	Right	9				
	Left	9				
	Bilateral	1				
Age :	1—5	5—10	10—20	20—30	30—40	Above 40
	<u>5</u>	<u>2</u>	<u>5</u>	<u>4</u>	<u>2</u>	<u>1</u>
	Minimum age	4 years				

Types:—

Synovial	8
Osseous	11
Condyles of femur affected	5
Condyles of tibia	2
Articular cartilage eroded	4

In one case in an adult male of 20 years of age with a tuberculous Synovitis of the left knee there was osteoporosis of the *patella*.

Two cases were associated with lesions of other joints. In one case an adult male of 25 years there was a *tubercular dactylitis*. In another male of 30 years with disease of the left knee, the right elbow was also affected. In one case there was a *disease of the lung of a fibrotic nature*.

In a large outpatient department or one's own clinic one must be on the alert to spot the early cases: A working rule would be "A mono-articular affection of a large joint which is persistently warm on repeated examinations is tuberculous."

Other chronic affections of knee joint are extremely common as recurrent effusions of the knee due to repeated trauma and occupational conditions. Wasting of the quadriceps is a very early sign in most cases of any affection of the knee hence greater care is required to spot cases of tubercle knee in the early stages.

Senile tuberculosis of the knee does occur; this has to be differentiated from osteo-arthritis of the knee.

8. Ankle including talus: 8.

				Right	3	Males	7
				Left	5	Female	1
Age:	1—5	5—10	10—20	20—30	30—40	Above 40	
	1	0	2	2	3	0	

Minimum age 5 years.

Types: Synovial 2 }
Osseous 6 }

Osseous: —

1. All bones of ankle joint affected 4
2. Only talus affected 1
3. Lower end of the tibia (Metaphyseal) 1

Associated Lesions:—

In one case, 23, male, with disease of the left ankle the *astragalo-navicular joint* was also affected.

In another case, 40, male, there was disease of the left ankle associated with *open pulmonary tuberculosis*.

In one case, female, 19 years, the head of the left talus presented cystic changes with no involvement of the ankle joint *Osteitis tuberculosa cystica*.

In one case the whole talus had been diseased with *compression of the bone* as a result of weight bearing.

9. Tarsal bones:— 4

Male	1	{ Right	2
Female	3	{ Left	2

Age:	1—10	10—20	20—30	30—40
	0	2	0	2

Calcaneus 1—9 female; histology proved the lesion to be tuberculous.

Talus	1	10	Female
Talus and navicular	1	40	Female
Navicular alone	1	34	Male

TUBERCULOSIS OF JOINTS.

106 cases of Tuberculosis of joints were studied; age and sex incidence and the type as seen clinically and with radiographic study are presented below.

All infection occurs through blood stream. Primary focus is in the mesenteric glands. *Disease may appear in the infant*. All types of bone are involved. Primary infection is most common in the bone itself and less frequently in the joints; more boys than girls are affected. In this group actually 74 males and 32 females are affected.

In England the onset of arthritis is between the ages of 3 and 5 in 48% of cases; in 75% of cases first signs are noticed before the age of 14. This statement tallies in case of tubercle of hip here also but as regards other joints the age incidence noted here is higher. It may be that the large infant mortality is responsible for this age incidence as these children readily succumb.

Up to 6 years of age, the incidence in either sex is equal, above that age, 5 boys to 3 girls are affected. Sacro-iliac joint disease may occur in childhood; a few are affected at about 12; Hip is the commonest joint affected, next is knee and then elbow. In this group elbow cases are more than the knee cases.

Elbow affection is osseous in type in the majority of cases; cases may be mistaken for osteomyelitis; it begins primarily in the *greater sigmoid cavity* of the ulna. Tuberculous disease of the Shoulder is less common.

I think it is extremely difficult to diagnose tuberculosis of the shoulder. In a sputum positive case X-rays did not demonstrate much change in a tuberculous shoulder. In a case with sinuses the radiogram did not reveal any change. One case in a young man showed marked atrophy of the muscles, the sinus may be far away from the shoulder as in the middle of the arm or even lower down.

In ankle joint primary bone disease is common.

The early diagnosis of the tuberculous joint cases is important. The following elementary signs and symptoms may be borne in mind.

- (a) If there is no limitation of movement, then there is no arthritis.
- (b) If there is swelling, it means the synovial membrane is involved.
- (c) Pain and (d) muscle atrophy or spasm are always present.

EARLY DIAGNOSIS OF TUBERCULOUS DISEASE OF JOINTS.

I have realised that it is difficult to come to a certain conclusion in cases of affections of large joints. One must decide whether a joint has to be rested or not. A radiograph taken even a week after immobilization of a joint does show rarefaction. Therefore before a diagnosis is arrived at, a sub-acute or a chronic affection of a joint should not be immobilized. A slight rise of temperature taken in the mouth or rectum, local wasting of the muscle, continued warmth of the joint during repeated examinations, narrowing of the interarticular spaces in a skiagram, and a positive Mantoux test will enable the surgeon to come to a conclusion. It is difficult to prove the tuberculous nature by a positive finding. Many examinations of synovial fluid prove to be sterile and no T. B. has been recovered on guinea pig inoculation. In one instance of a hip joint case, and in two instances of the spine have T. B. been found on guinea pig inoculation. There is generally an enlargement of the lymph gland draining the area. It is claimed by some authorities that biopsy of these glands has given more positive results. In three instances, the biopsy proved negative histologically and on guinea pig inoculation. In three instances of synovectomy of early tuberculous disease, the synovial membrane was not histologically tuberculous. One of these, a case of T. B. of Elbow in a woman aged 31 kept under continued observation showed bony changes in the humerus and has developed a cold abscess in front of the sternum. Therefore, a biopsy of the synovial membrane and the lymph gland draining the area will not give a positive result in the early cases. If the disease has lasted for more than a year and a half, the histological examination of the synovial membrane has uniformly proved to be tuberculous.

Cold abscess.—The tubercle bacillus is found in only about 1/5 of these abscesses so that failure to find T. B. does not disprove the diagnosis.

Clinical judgment must remain supreme in the diagnosis of these cases.

Tuberculosis of the upper extremity differs from tuberculous affections of the lower extremity as follows:—

- (1) Peculiarly slow and insidious.
- (2) No pain is experienced until the disease is fully established.
- (3) increasing stiffness of the joint and rigidity noticed.
- (4) The average age of onset of the disease in the lower limb is 5 years while that of the upper limb is 8 to 9 years; the great disparity being due to the comparative frequency with which the joints in the upper limb are affected in the adult.

I know of two children aged 8 and one adolescent male aged 16 with elbow disease which is going on for 3 years without much destruction of bone; the elbow is swollen, warm and just limited in its movements.

A mother of a large family has her elbow affected for 5 years. The elbow is swollen and stiff, she would not hear of a diagnosis of tubercle of the joint.

PROPHYLAXIS OF BONE TUBERCULOSIS IN CHILDREN.

Both bovine and human tuberculosis could be stamped out in the young by insisting on effective control of Milk supply; and by separating a tuberculous parent from the offspring.

Bone tuberculosis seldom causes death; when it does it is because of neglect or improper treatment or of multiple infections. The mortality rate in multiple infections is 5 to 7% in western countries. The causes of death are

- (a) Meningitis.
- (b) Tubercle of Lungs.
- (c) result of mixed infection.

The actual mortality rate in this province is much higher although I cannot give accurate figures. Mixed infection and multiple infections are common.

Treatment:—The Native bonesetter and the native Malabar system of treatment have no ideas of treating tuberculosis of joints. The cases are

subjected to massage and other measures. Early diagnosis is important. Treatment in a child should be entirely on conservative lines while in an adult in this country operative measures have to be undertaken at the appropriate optimum time after raising the general health of the patient; Recovery is a matter of months or years; at no time can any one say it is positively cured.

The conservative treatment consists of immobilisation of the joint which ensures complete, continued, uninterrupted rest in suitable splints with skin traction; This immobilisation must be continued until all pain and spasm pass off and re-calcification of the bones is fairly well advanced; In an average case with good health this takes 9 months to a year; the upper extremity cases are treated on ambulatory lines.

The general treatment consists of good nourishing food, eggs, cod liver oil, butter and residence in a sanatorium, or a hospital or the house in the most ventilated and well lit part of the house. Even in a poor house this continued immobilisation could be carried out. Most of my child patients are kept in their own houses in plaster of paris casts. The most important factor in the treatment is thorough immobilisation, both for children and adults. The practitioner must familiarise himself with the correct method of immobilisation of each joint.

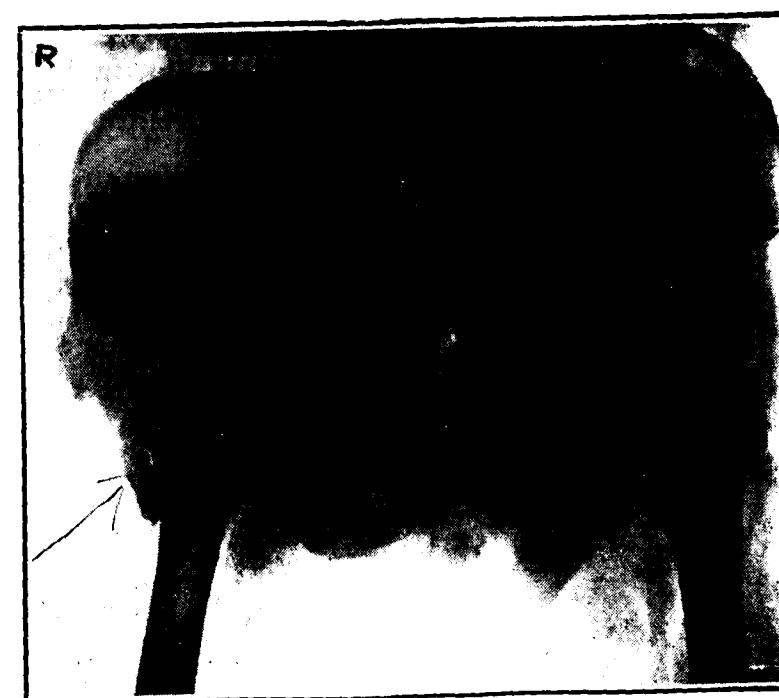
Cold abscess may develop even under complete immobilisation.

CARE OF COLD ABSCESS.

- (1) Intensify general care and sunshine.
- (2) 70% of abscesses are absorbed without opening.
- (3) If abscesses threaten to rupture, keep skin surgically clean.
 - (a) Bathe with alcohol daily.
 - (b) apply sterile gauze dressings over abscesses and surrounding skin.
 - (c) do not at any time touch skin with unwashed hands.
 - (d) use sterile instruments to clean skin.
- (4) Aspiration.
 - (a) Should be done with strict aseptic technique.
 - (b) Needle should be inserted through good skin and not over point of threatened rupture.
 - (c) Do not squeeze abscess.



Muslim boy aged 14 : under observation and treatment since 1932 : Protrusion of the acetabulum has taken place since 1937.
Case of Tuberculosis of Left Hip



R—Hindu—aged 25—Tuberculosis Right hip—Extra-articular arthrodesis by a large ileal graft—one year and four months after operation : The graft has consolidated satisfactorily.

(5) If abscess ruptures.

(a) use sterile rubber gloves when dressing wound.

(b) use sterile towels and strict aseptic technique for dressing.

In adults when they are showing signs of recovery as judged by freedom from pain, pyrexia, recalcification, increase of weight, which take a year, some method of arthrodesis has to be done. For the shoulder, the site of infection is the head of the humerus and extra-articular arthrodesis is not enough. Jones's method of arthrorothesis is done; two cases were done this year. For the elbow an excision is done before the peri-articular tissues are involved and when there are no sinuses. 4 cases were treated with excision during the year. Sinuses would call for an amputation in poor people. Wrist is better treated by conservative measures only; curettage or excision should not be done.

For the Hip Joint an extra-articular arthrodesis by a large bone graft slid down from the iliac bone and secured to the greater trochanter produces a sound ankylosis.

Two cases were done during the year.

Knee requires a complete arthrectomy and a modified excision (Jones's technique); four cases were operated on in the year.

Ankle joint does not tolerate plaster of paris; there is a tendency for sinus formation. Jones crab splint is good for conservative treatment; arthrodesis for one late case was done during the year.

Tubercle of the tarsal bones in adults requires excision of the single bone *as part of* calcaneus, complete removal of talus or navicular or cuneiforms. Anterior tarsectomy was required in a middle-aged man. Disease of the metatarsals, metatarsals, phalanges are treated by excision of the diseased bone. The prognosis is good in these cases.

Tuberculosis of the sacro-iliac joint requires special mention here. Early diagnosis is difficult; No reliance must be placed on Erichsen's sign i.e., pain elicited on attempting to separate the two iliac bones or on pressure over the anterior superior spines. Two cases were diagnosed early and were treated by immobilisation; one of these cases was complicated by a B. Coli infection of the kidneys; the other one was in a medical ward.

The other two cases had been discharged from the medical wards of a hospital. They were treated by a fixation or fusion operation; if sinuses



M—Hindu—20—Tuberculous synovial membrane—histologically positive; repeated guinea pig inoculations proved negative.

form they will die after a prolonged illness after 4 to 5 years. A sinus may form anteriorly lateral to the femoral artery and the ilio-psoas bursa, the Sacro-iliac joint, may be infected with secondary involvement of the hip joint. It is found frequently in the adult as well as in the child. The children as well could be operated.

The accompanying statement shows the operations performed.

The *After-Treatment* must be continuous till sound ankylosis takes place; a continued after-care also is essential.

Tubercle Shoulder.

S.	17	M	H	Right Jones arthrodeisis 28/1 and 2/2/.
	30	F	H	Left 23/12/38.

T. B. Hip.

R.	29	M	H	T. B. Right. Extra articular arthrodeisis 23/2/38.
----	----	---	---	--

Radiogram in June 1939 shows good solid consolidation.

Annamalai	20	M	H	Soutters (Right) 8/4/ and 13/4.
				Extra articular arthrodeisis on 13/7/38.

Radiogram in May 1939 shows good consolidation.

T. B. of Ankle.

B.	38	F	H	T. B. ankle right 15/12 arthrodeisis.
----	----	---	---	---------------------------------------

T. B. Elbow.

M.	25	M	H	T. B. left elbow excision—subsequent amputation 9/3 and 19/3.
K.	30	F	H	T. B. elbow 7/4 and 11/4/38.
A.	35	M	I Ch.	T. B. Elbow 9/5.

Other joints.

M.	34	F	H	T. B. Ileum 11/3/38.
R.	9	FC	H	T.B. Calcaneus curetting; 19/3 and 28/3
A.	39	M	H	T. B. Foot 30/5 anterior tarsectomy

Sacro-iliac joint.

S.	30	M	H	Smith Peterson method of fusion of of Right Sacro-iliac joint 7/3/39.
----	----	---	---	---

Re-examination 26/6/39: good arthrodeisis. Patient is able to move about without pain.

R.	25	F	H	Smith Peterson method of fusion of Left Sacro-iliac joint in January 1938 in case with sinuses posteriorly and anteriorly; sinuses still persist.
----	----	---	---	---

T. B. Knee.

Arthrodeisis of the knee by the Jones method is good: all the eight cases have consolidated well; This is done only in adults:

II. POTTS DISEASE		116
Sex Incidence		
	Males	79
	Females	37
Age:—		
	1—10	10—20
	20—30	30—40
	40—50	Above.
	46	19
	24	12
		5
		9

Vertebrae affected:—Cervical	15
Dorsal	67
Lumbar	34

Of Dorsal—27 Lower dorsal region—5 cases. Of these 22 cases of these in

XII dorsal and I L V. were affected.

There were two cases in which the intervertebral discs were not affected but the bodies of the vertebrae were carious. One was in an 8 year girl in which the 5th and 6th cervical vertebrae were affected. The other was in a 10 year girl in which the 2nd, 3rd and 4th L. V. were affected but the discs showed no change.

Deformity of the spine was present in 15 cases.

Of these:

Angular deformity	10 cases.
Kyphosis	4 cases.
Kyphoscoliosis	1 case.

Nerve symptoms:—There were 2 cases with paraplegia. There was one case which was referred from the medical side as *Syringomyelia*.

60—M—H—in which 3rd, 4th and 5th cervical vertebra showed destruction. There was one case which came for pain in the back and was suspected to be a *spinal tumour*. With lipiodal no block was observed. The 12th Dorsal and I. L. V. showed tuberculous changes with paravertebral abscess.

RETENTION OF URINE:—was the main complaint of the patient and the 10th and 11th D. V. showed tuberculous change. (30—M—H.)

Torticollis was observed in one case—2 year male child in which the VI cervical vertebra was affected.

Abscesses occurred in 35 cases. The sites of the abscesses were as follows:—

Retropharyngeal—

Paravertebral (Lower dorsal region) 20 cases of which 3 were *mediastinal* abscesses.

Psoas abscesses 9

Perirenal abscess—1 case associated with *psoas* abscess 12th D and I. L. V. affected in an adult male.

Iliac:—4 cases.

Repeated examination of the abdomen by palpation will reveal many abscesses.

ASSOCIATED LESIONS:—

In three cases the *Hip joint* was involved. 2 of them showed definite tuberculous changes in the hip, while in one in a man, 30 years—where the 2nd and 3rd lumbar were affected, there was *osteoarthritis* of the left hip.

One case in which the 5th L. V. was affected showed involvement of the *sacroiliac joints* with a sinus in the groin—in an adult male.

There was one case in which the *head of the XII rib* showed destruction with pathological *separation of the transverse process of the I. L. V. on the left side* in an adult male with disease of 12 D. V. and I. L. V. and *psoas* and *perirenal abscess*.

There were 2 cases in which the *body of the V. L. V. showed a slipping forward* over the sacrum. One was in a 18 year old girl with disease of II, III and IV L. V.—The other was in an adult female with disease of the II, IV and V. L. V.

There was one case in which the *lung* showed areas of consolidation.

In one case, (42—female) there was disease in both the *dorsal region*—(upper) and *lumbar region*—3rd and 4th.

Sequestrum was seen in one case of disease of the 4th and 5 cervical vertebrae—adult female.

Calcification—around the affected region was seen in 2 cases—both of them children. In both the mid-dorsal vertebrae were affected.

There were 3 cases with spondylitic changes of the elderly age type: Senile tuberculosis of the spine was met with in two instances.

OBSERVATIONS ON TUBERCULOUS DISEASE OF THE SPINE.

Tuberculous disease of the spine constitutes 45% of all tuberculous affections of joint. The disease is commonest in children between 2 and 5 years of age; in this series 40% of cases occurred between 4 and 10 years of age: one case occurred before the age of 1. 116 cases are studied in this series—males 79 and females 37. This does not represent the actual condition of affairs. Only 5% of cases are diagnosed early enough; when I say early enough I mean the presence of a demonstrable bony lesion in a radiograph. All other cases come in advanced stages: during the year two Government servants who had been under constant treatment for backache and who have been radiographed came in with angular curvature in one case and another with a large paravertebral abscess. As Pott's disease is a local manifestation of a general disease the early symptoms may be general as loss of appetite, poor nutrition and tiring easily. If one looks for signs and symptoms they are always present. Only in the case of the disease of the 5th lumbar vertebra difficulties in diagnosis ought to arise on account of the frequency of the anomalies in this region.

SEVERE PAIN IN THE EARLY STAGES IS UNCOMMON.

There may be disinclination for work, for play or they may be referred pain; referred pain in the epigastrium has been frequently mentioned in the book; but this is not so common; only in one case it was noted; on the other hand referred pain to the ear, shoulder to the side of the chest, appendicular region, gluteal region, legs and heel are fairly frequent.

A scheme for the examination of every spine case must be followed:—

(a) Movements of the spine are restricted on account of a spasm of the muscles.

(b) In a suspected case examine the various parts of the spine for limitation of motion.

N. B.—Very little flexion occurs in the dorsal region, and consequently the common test of forward flexion may easily fail to reveal a focus in the upper dorsal region. In such a case rotation will be diminished.

(c) Often the child may be brought for lateral curvature as the mother puts it; this lateral curvature is present nearly in 10% of cases; it may be passed on as scoliosis. This is not like the smooth curve of scoliosis but is more a leaning of the whole spine to one side above the lesion.

(d) Deformity may be the first symptom; (concertina collapse)

(e) Paraplegia may be the first symptom.

It may be mentioned that it is not necessary to examine by pressure on the spine or by a knock on the head. This method has been traditionally handed over; this may do damage to the bone.

If the disease is not recognised and treated abscess formation is almost the invariable rule. Affections of the 5th to the tenth dorsal vertebra cause 60% paraplegia. This is called the paraplegic area of the spine.

DIFFERENTIAL DIAGNOSIS.

- (1) Appendicitis in children.
- (2) Injury of the spine in children and adults (compression fracture).
- (3) Tuberculosis of the sacro-iliac joints.
- (4) Typhoid spine.
- (5) Kyphosis in infants—The x-ray appearances may resemble those of tuberculosis. The anterior parts of the intervertebral discs may have disappeared and some narrowing of the anterior parts of the bodies of the contiguous vertebrae, producing the typical deformity; there is no decalcification, the anterior parts of the bodies may be fused together with some degree of sclerosis; this is probably congenital in origin and may be associated with congenital heart disease (Burns and Ellis).
- (6) Osleo-chondritis of the spine (Calve's).
- (7) Old unrecognised compression fractures of the spine.
- (8) New growth in adults.

(a) Primary.

One case of primary sarcoma from the spinous processes of the cervical vertebrae was seen with Quadraplegia in a man of 35: Pain was excruciating; there was a large bilateral swelling on either side of the middle line. Radiogram revealed destruction of several spinous processes.

A child of three was brought into hospital with paraplegia of sudden onset; there was an obvious swelling on either side of the middle line at the lower dorsal region. A biopsy proved it to be a sarcoma.

(b) Secondaries from breast, thyroid, kidney, etc.

(9) Spinal tumour syndrome in cases of posterior lesions of the body of the vertebra.

(10) Aneurysm of thoracic aorta—an aneurysm is proverbially painful; the radiating pains prevent the patient from sleeping. Last year there was a case in an elderly adult who had symptoms of aneurysm without any pain; His serum reaction was strong positive but he had a large number of live children. Radiograms showed destruction of the anterior surface of the bodies of the vertebra with destruction of the cartilage. In a clinical meeting no decision was arrived at when the case was demonstrated.

Post-mortem proved the case to be of aneurysm of thoracic aorta.

In the dorsal region tuberculous disease is more likely to involve a number of vertebrae than in the cervical or lumbar regions.

Angulation may start in the early active stages of the disease; this angulation may continue for years after the lesion has healed and it cannot be arrested by any form of external support.

The difference between upper dorsal and lower dorsal disease:—

In the lower cervical and upper thoracic region the segment of the spine above the lesion falls forward.

If the angulation is sufficient the body of the vertebra above may fall in front of the body of the vertebra below.

In this case the upper and lower segments of the spine do not come into sufficient contact for bony ankylosis to occur between the bodies: The deformity is likely to progress in spite of natural bony fusion of spinous processes or of bony fusion by bone grafting. So severe kyphoses are met with in the upper dorsal region.

In lesions below the 6th dorsal, posterior displacement of the upper segment of the spine occurs.

The bodies of the vertebrae representing the upper and lower segments are brought into contact. Therefore bony fusion of these parts may occur. Prognosis is thus better and kyphosis may become satisfactory.

The after-effects of Angular deformity :—

- (1) There is considerable diminution in the size and mobility of the chest ;
- (2) Interference with heart's action ;
- (3) Intense backache in the lumbar region ;
- (4) Late onset of paraplegia due to reactivation of the disease or bony pressure in the cord.

2. Treatment is general and local.

Local treatment consists in rest by hyperextension of the spine.

(See paper in Stanley Medical College Magazine—June 1937.)

How does hyperextension differ from simple rest in recumbency ?

(a) Treatment in hyperextension decreases the amount of bone destruction. (b) Accidents which may occur from flexion of the spine during the active stages of the disease are prevented; hyperextension definitely diminishes paraplegia. (c) The bodies of the vertebrae adjacent to the diseased area may show the compensatory overgrowth phenomenon. This overgrowth tends to lessen the gap produced by the bone destruction and is therefore of value in limiting the deformity.

The method used is the Bradford's frame.

How long to continue Hyperextension ?

It must be continued until the disease is quiescent i.e., by radiogram it must be determined that bone destruction is at an end for more than six months.

The next stage is to allow the vertebrae to fall together and fuse :—

This is done by nursing the patient on his face in a plaster shell; and at this stage the muscles may be gently rubbed over with alcohol daily.

Development of compensatory curves :—

Compensatory curves are the best insurance against reactivation of the disease and a late increase of the deformity.

The compensatory curves should be as near the lesion as possible; this is done by adequate padding while the patient is on the posterior frame. Compensatory curves should be fully developed before the patient is allowed up; they must be maintained and the healed lesion protected during ambulatory treatment.

What are the methods of maintaining fusion ?

- (a) External splinting (Taylor's brace)
- (b) Internal splinting Albee's spinal fusion; the area fused should include the kyphos and the adjoining compensatory curves.

3. *Contraindications for spinal fusion :—*

- (1) Activity of the disease both in children and adults because :

- (a) there is no consolidation at the site of lesion
- (b) absence of compensatory curves
- (c) Operation is severe and may weaken the individual.

(2) Children—no fusion would take place as the spinous processes are partly cartilaginous.

Indications and objects of spinal fusion :—

- (1) To protect the newly consolidated lesion from trauma.
- (2) To maintain the compensatory curves at their optimum.
- (3) To protect the progressive increase of deformity which occurs in adult life especially in dorsal caries; it is in the dorsal region that late paraplegia occurs without recrudescence of the active disease, and which would almost certainly be prevented by fixation of the neural arches.

Spinal fusion is not necessary :—

In lumbar region as the results of conservative treatment are good.

The fusion is not solid in less than three months and the patients must wear a Taylor's brace before he is out of bed.

If the graft absorbs or breaks, it is generally at the site of lesion and this demonstrates that the consolidation of the previously diseased area is not complete.

Paraplegia occurs in 25% of cases and in 5/6 of the paraplegic cases the incidence of early onset and late onset paraplegia is almost equal.

For paraplegia, apart from costo-transversectomy, there is no indication for laminectomy; conservative treatment is enough.

Albee's spinal fusion cases :

MY OWN PERSONAL CASES.

- 1 case died 6 months after operation.
- 1 case developed paraplegia 3 years after spinal fusion.

- 4 cases could not be traced.
- 1 case had fracture at the middle of the graft 6 months after operation but has consolidated now.
- 1 case 4 years after operation has caries of a rib: the spine has consolidated well.
- 2 patients are quite well and doing duty.

Costo-transversectomy:—

1 case in an young adult with a large paravertebral abscess and toxic and pressure symptoms; smear examination showed tubercle bacilli; early radiographs taken a year previously did not show destruction of vertebral bodies. The tubercular infection occurred probably in a case of osteo-chondritis of spine.

NOTICE.

WARNING NOTICE TO REGISTERED MEDICAL PRACTITIONERS.

As a number of cases of advertisement by registered medical practitioners in the lay Press and by means of handbills, have come before the Madras Medical Council in recent months, the Council has, at its last meeting held on the 17th April 1939, decided to warn all registered medical practitioners that all kinds of advertisements—including even the opening of private institutions, inviting laymen to attend functions connected therewith and publication of same in lay papers under section 6 by registered medical practitioners will be considered as advertisement of the Warning Notice published by the Medical Council, and will be dealt with accordingly.

(Sd.) N. M. WILSON, MAJOR-GENERAL, I.M.S.,
President, Madras Medical Council.

JOURNAL OF SOUTH INDIAN MEDICINE.

JULY 1939.

OURSELVES.

The Union has been in existence for nearly twenty years and it has gone through many vicissitudes. Whenever the membership thins or finances get lean there are always a few individuals who advise change in the constitution, the reduction of membership fee, or curtailment of its activities. There are others who give exactly the contrary advice that we should increase our activities. But they do not help us with any suggestions for getting the necessary funds. Such periodic difficulties are not unknown elsewhere. All the world over medical societies in common with other associations have had similar experience. Many of the associations have disappeared while a few have been absorbed into other associations and flourish under new names and better organization. Medical societies which are now over a hundred years old have started humbly and have gone through rough weather. They have in their time endured ridicule and experienced neglect. They have had to contend with rival associations and malicious propaganda. Our members and readers of this Journal may therefore ask how then did those organizations outlive all those troubles to compel respect and complete their centenary.

The affairs of the Union are by no means satisfactory at present. In a city where there are over eight hundred practitioners, it is not enough if we have about two hundred members on the roll. And it is still less satisfactory that Medical meetings should not have more than twenty to thirty practitioners to

attend. We say that this is not a satisfactory state. But that is no reason to be pessimistic. For, we remember the late Osler complaining once that in a city where there were more than 100 medical men, there was often difficulty in getting ten people together for meetings. Our object in referring to the affairs of the Union in this issue is to appeal to the practitioners in the City and the moffussil to exert themselves a little to brighten up the affairs. There is not much use in retrospection unless it helps us to advance. Our road is forward. "It is a noble thing to say that your road is forward and it befits a man of battles." So wrote George Meredith. It behoves the practitioners of the city and outside to fight out prejudice and apathy. The medical profession is just now in one of its gloomiest phases. The seniors may be resigned to it. But the junior members have every cause to plan out measures to dispel the gloom. It requires no elaborate argument to believe that it will be easier to win if medical practitioners will get together a little more.

THERAPEUTIC NOTES.

Issued by Malaria Institute of India.

ACTION OF QUININE AND THE SYNTHETIC DRUGS ON MALARIA.

(From 4th General Report of League of Nations Malaria Commission.)

	Action on Trophozoites.		Action on Gametocytes.		Action on acute Symptoms.		Action on frequency of relapse.	Action on Splenomegaly.	Effect on general condition of patient.
	B. T. + Q.	M. T.	B. T. + Q.	M. T.	B. T. + Q.	M. T.			
QUININE ...	Daily dose of 1 g. (15 grs) causes disappearance, 5-7 days.	Daily dose of 1.3 g. (20 grs.) causes disappearance, 5-7 days.	Affects pre-gametocytes and gametocytes.	Affects pre-gametocytes but gametocytes only very slightly.	Marked action from 3rd day (2nd paroxysm.)	Variable action from 3rd or 4th paroxysm.	Acts on all species but effect is transient where re-infection or relapses are frequent.	Acts on all species but effect is transient where re-infection or relapses are frequent.	No effect if treatment is limited to number of days essential.
ATEBRIN ...	Daily dose of 0.3 g. causes disappearance after 3 days. Effects last longer than quinine.	Daily dose of 0.3 g. causes disappearance after 4 days in 90% of cases.	Similar to quinine but slightly more marked.	Similar to quinine.	Very marked action. Fever falls by 2nd paroxysm.	Marked action. Fever usually falls by 3rd paroxysm (but with some strains effect is less than quinine.)	Action slightly more than quinine especially in B. T. and certain strains of M. T.	Effect somewhat slower than quinine but seems to last longer.	Sometimes yellow coloration of skin.
PLASMO-QUINE.	Slight action only.	Practically no action.	Definite action in both species.	Marked action in minimum doses of 0.02 g.	No indications for using plasmoquine alone for treatment of acute attack.		Definite effect in B. T. and Q. In association with quinine and atebirin it has a marked effect in reducing relapses in all 3 species.	Insufficient data.	In the doses now used (e. g., 0.02 g.) it seems to have no depressing effect.

NOTES

A.—ACTION OF COMBINATIONS OF DRUGS.

1. There is no advantage in combining quinine and 'atebrin' in treatment.
2. Quinine + 'plasmoquine' simultaneously produce less frequent and less intense toxic symptoms than 'atebrin' + 'plasmoquine', but are best given consecutively where possible. Quinine (15-20 grains daily, 7 days) + 'plasmoquine' (0.02 g. daily, 5 days*) are probably the best treatment for B. T. and Q. malaria.
3. Simultaneous administration of 'atebrin' and 'plasmoquine' aggravates the toxicity of each and is not recommended. Consecutive treatment with 'atebrin' (0.3g. daily, 5-7 days) and 'plasmoquine' (0.02 g. daily, 5 days *) has no advantage in the primary attack, but acts on gametocytes and relapses in the same manner as quinine and 'plasmoquine' treatment.

B.—PRACTICAL SUGGESTIONS FOR TREATMENT.

1. *Individual Treatment.*—Quinine (15-20 grains) or 'atebrin' (0.3 g.) 5-7 days, followed by 'plasmoquine' (0.02 g.) 5 days, or quinine + 'plasmoquine' simultaneously.
2. *Treatment in Field.*—Quinine (15-20 grains) or 'atebrin' (0.3 g.) 5-7 days, followed by 'plasmoquine' (0.02 g.) 5 days if funds and medical supervision are available. But if, as is usual, this is not so, short treatments with the cinchona alkaloids are more suitable.
3. *Mass Drug Prophylaxis.*—Daily doses of quinine (0.4 g. or 6 grains), or bi-weekly doses of 'atebrin' (0.2 g.).

* For gametocidal purposes alone, however, one dose of 0.02 g. 'plasmoquine' followed by a second dose, if necessary, on the 5th day is equally effective. It may be noted also that in one mass treatment experiment (in Sardinia), the daily administration of 0.02 g. 'plasmoquine' had to be stopped after 3 days on account of toxic symptoms.

ASSOCIATION NOTES.

The Tinnevely District Medical Association, Palamcottah.
(Tinnevely Branch of the Indian Medical Association)

MONTHLY MEETING.

The Tinnevely District Medical Association held its monthly Meeting on Saturday the 24th of June 1939, at Papanasam, one of the most sacred places of the District, noted for natural scenery and most charming waterfalls.

Members numbering 40 gathered from all parts of the District. All members had an early bath in the Falls which was followed by light refreshments.

The meeting began at 10 A.M. The Secretary and Treasurer read out the resignation letter from Lt.-Col. T. S. Shastry, I.M.S., the former President of the Association, which was accepted. Dr. R. V. Padmanabhan, M.B.B.S., proposed Lt.-Col. K. V. Ramana Rao, I.M.S., District Medical Officer, to be the President of the Association and seconded by Dr. L. Mahadevan, M.B.B.S., D.O.M.S. Lt.-Col. K. V. Ramana Rao, I.M.S. was unanimously elected as President of the Association.

The Secretary and Treasurer read out the minutes of the last meeting held at Srivaikuntam on Saturday the 27th of May 1939.

Dr. K. Rama Ayyar, M.B.B.S., Honorary Assistant Medical Officer, read out the following cases which were successfully operated in the Government Headquarters Hospital, Palamcottah :—

1. A case of stone in the Bladder.
2. A case of Lipoma, right humerus.

Dr. P. Ramalinga Nayanar, L.M.P., of Shermadevi, read an interesting paper on "The Use and Abuse of Insulin".

After a detailed discussion by the members, Lt.-Col. K. V. Ramana Rao, I.M.S., summed up the salient and important features of all the cases and their differential diagnosis in detail.

Dr. K. Rama Ayyar, M.B.B.S., Secretary and Treasurer, on behalf of the Association, offered his cordial thanks to Dr. T. V. Gopala Menon, M.B.B.S., for the excellent arrangements.

Thereafter an excellent Dinner Party brought the happy gathering to a close at 1 P.M.

PUNJAB MEDICAL COUNCIL.

Extracts from the proceedings of a meeting of the Punjab Medical Council held at Lahore, on Saturday, the 29th April, 1939, at 10 A.M.

Considered the recommendations of the Registration Sub-Committee held on the 5th of April, 1939 (Appendix "A")

A point of order was raised that the agenda and the recommendations of the Sub-Committees should not be made public till the agenda has been discussed and recommendations of the Sub-Committees have been approved by the Council.

After a considerable discussion it was agreed that the full agenda need not be kept confidential by the members but that all confidential items of the agenda be marked as such.

Resolved that the following alterations be made in the recommendations of the Registration Sub-Committee.

Item No. 10.—That the Council is satisfied that Dr. B. J. Sahni had no part in the publication of the advertisement.

Item No. 19.—That Dr. Bashir Mahmood be informed that his request cannot be entertained.

Subject to the above the recommendations of the Registration Sub-Committee were approved.

Considered letter No. 514-M-39/10684, dated the 20th March, 1939.

Resolved that no charges be made for the additions of recognised titles and for the alteration in the names of Lady Doctors on account of marriage.

Punjab Government letter No. 4327-M-38/4037, dated the 31st January, 1939, *re.* registration of non-nationals in the Punjab Medical Register was recorded and it was resolved that the same resolution which was passed in April, 1938, be passed and resubmitted to Government for consideration.

(Resolution passed in April, 1938)

Resolved that (i) foreign nationals whose country of origin possesses no reciprocity relation with India on the basis of the Schedule of the Medical Council in the matter of medical registration, should be debarred from being

registered as medical practitioners in the Punjab under the provisions of Section 13, proviso II (a) of the Punjab Medical Registration Act.

(ii) foreign nationals whose country of origin possesses no reciprocity relations with India on the basis of the Schedule of the Medical Council of India in the matter of medical registration should be debarred from being registered as medical practitioners in the Punjab under the provisions of Section 13 (a) of the Punjab Medical Registration Act.

Courts judgments in the following cases of unqualified medical practitioners were recorded and it was resolved that publicity be given in the precis of proceedings sent to Press about their convictions.

(i) Abdul Rahman of Khanewal. The sub-Divisional Magistrate, Khanewal, convicted Mr. Abdul Rahman under section 6 of the Indian Medical Degrees Act 1916 who was using the letter "L.M.P." and "L.C.P.S." after his name without any lawful authority. The accused was fined Rs. 25/- or in default to undergo simple imprisonment for one month.

(ii) M. A. Ghani of Ferozepore. The additional District Magistrate, Ferozepore, convicted Dr. M. A. Ghani under section 23 of the Punjab Medical Registration Act and sentenced him to pay a fine of Rs. 51/-. The case was reported by the Punjab Medical Council.

Considered the case of Dr. Milap Chand Sethi, M.B., B.S.

Dr. Milap Chand was present at the meeting.

The Registrar read to the Council the notice of inquiry addressed to Dr. Milap Chand Sethi and stated the facts of the case. Thereafter Dr. Milap Chand Sethi read his written statement.

At the conclusion, the Council deliberated upon the case in camera and the chair put to the Council to vote on the question whether Dr. Milap Chand Sethi is guilty of infamous conduct in a professional respect.

The Council decided that infamous conduct in a professional respect has not been proved to the satisfaction of the Council.

Considered the report of the Sub-Committee appointed to consider and report upon the present defects in carrying out the functions imposed upon the Council in regard to the registration, medical education and any other matters with which the Council is concerned and to make recommendations with a view to check quackery which is rampant in this Province.

Resolved that the recommendations of the Sub-Committee with regard to the amendments in the Act suggested at their meetings held on the 26th

PUNJAB MEDICAL COUNCIL.

Extracts from the proceedings of a meeting of the Punjab Medical Council held at Lahore, on Saturday, the 29th April, 1939, at 10 A.M.

Considered the recommendations of the Registration Sub-Committee held on the 5th of April, 1939 (Appendix "A")

A point of order was raised that the agenda and the recommendations of the Sub-Committees should not be made public till the agenda has been discussed and recommendations of the Sub-Committees have been approved by the Council.

After a considerable discussion it was agreed that the full agenda need not be kept confidential by the members but that all confidential items of the agenda be marked as such.

Resolved that the following alterations be made in the recommendations of the Registration Sub-Committee.

Item No. 10.—That the Council is satisfied that Dr. B. J. Sahni had no part in the publication of the advertisement.

Item No. 19.—That Dr. Bashir Mahmood be informed that his request cannot be entertained.

Subject to the above the recommendations of the Registration Sub-Committee were approved.

Considered letter No. 514-M-39/10684, dated the 20th March, 1939.

Resolved that no charges be made for the additions of recognised titles and for the alteration in the names of Lady Doctors on account of marriage.

Punjab Government letter No. 4327-M-38/4037, dated the 31st January, 1939, *re.* registration of non-nationals in the Punjab Medical Register was recorded and it was resolved that the same resolution which was passed in April, 1938, be passed and resubmitted to Government for consideration.

(Resolution passed in April, 1938)

Resolved that (i) foreign nationals whose country of origin possesses no reciprocity relation with India on the basis of the Schedule of the Medical Council in the matter of medical registration, should be debarred from being

registered as medical practitioners in the Punjab under the provisions of Section 13, proviso II (a) of the Punjab Medical Registration Act.

(ii) foreign nationals whose country of origin possesses no reciprocity relations with India on the basis of the Schedule of the Medical Council of India in the matter of medical registration should be debarred from being registered as medical practitioners in the Punjab under the provisions of Section 13 (a) of the Punjab Medical Registration Act.

Courts judgments in the following cases of unqualified medical practitioners were recorded and it was resolved that publicity be given in the precis of proceedings sent to Press about their convictions.

(i) Abdul Rahman of Khanewal. The sub-Divisional Magistrate, Khanewal, convicted Mr. Abdul Rahman under section 6 of the Indian Medical Degrees Act 1916 who was using the letter "L.M.P." and "L.C.P.S." after his name without any lawful authority. The accused was fined Rs. 25/- or in default to undergo simple imprisonment for one month.

(ii) M. A. Ghani of Ferozepore. The additional District Magistrate, Ferozepore, convicted Dr. M. A. Ghani under section 23 of the Punjab Medical Registration Act and sentenced him to pay a fine of Rs. 51/-. The case was reported by the Punjab Medical Council.

Considered the case of Dr. Milap Chand Sethi, M.B., B.S.

Dr. Milap Chand was present at the meeting.

The Registrar read to the Council the notice of inquiry addressed to Dr. Milap Chand Sethi and stated the facts of the case. Thereafter Dr. Milap Chand Sethi read his written statement.

At the conclusion, the Council deliberated upon the case in camera and the chair put to the Council to vote on the question whether Dr. Milap Chand Sethi is guilty of infamous conduct in a professional respect.

The Council decided that infamous conduct in a professional respect has not been proved to the satisfaction of the Council.

Considered the report of the Sub-Committee appointed to consider and report upon the present defects in carrying out the functions imposed upon the Council in regard to the registration, medical education and any other matters with which the Council is concerned and to make recommendations with a view to check quackery which is rampant in this Province.

Resolved that the recommendations of the Sub-Committee with regard to the amendments in the Act suggested at their meetings held on the 26th

LEPROSY

CHAULMOOGRADINE

While Chaulmoogradine tablets may not adequately replace injection treatment of Leprosy, they are nevertheless very useful for reinforcing injection of chaulmoogra preparations, as a maintenance treatment between courses of injections and as a precautionary treatment against relapse following the cessation of injections.

Relapse often occurs through treatment being stopped too soon. Sometimes a complicating disease may suppress the cellular reaction to the B. Leprae, as a result of which the disease may appear to be arrested, but actually is only quiescent.

The administration of Chaulmoogradine tablets at the cessation of injection treatment will serve to maintain resistance to the B. Leprae, and reduce the danger of relapse.

The tablets are composed of salts of the total unsaturated fatty acids present in chaulmoogra oil; they are convenient to take and remarkably free from any deleterious action on the stomach.

COMPOSITION: Gluten coated tablets each containing $\frac{1}{2}$ gram of the sodium salts of Chaulmoogric and Hydnocarpic acids.

ADVANTAGE: The gluten coating prevents gastric disturbances.

DOSE: One tablet three times a day, which may be increased to six tablets per day in some cases.

PACKING: Bottles of 100 tablets.

PHARMASOL CHAULMOOGRA

COMPOSITION: A colloidal preparation of Chaulmoogra oil.

Strengths	Ampoules	Vials.
0.1 per cent.	2 cc and 5 cc	25 cc
0.2 " "	2 cc	25 cc
0.5 " "	2 cc	25 cc
1.0 " "		25 cc
2.5 " "		25 cc

DOSAGE: Begin with $\frac{1}{2}$ to 2 cc of 0.1 per cent every 2nd day. Gradually increase the dose and interval till 5 cc or more of 1.0 per cent or 2.5 per cent is given once a week.

METHODS: Intramuscular or intravenous as convenient.

ADVANTAGES: No venous occlusions.

The Anglo-French Drug Co. (Estn.) Ltd.,
P. O. Box 460 — BOMBAY.

January, 1939, and 6th March, 1939, be approved except section 17 (1) where no amendment is necessary. The consideration of the recommendations of the Sub-Committee meeting held on the 5th of April, 1939, was postponed and the Registrar was directed to obtain information with regard to the constitution of the various Medical Councils in India also the General Medical Council and also the number of persons registered in each Group in the various Medical Councils in India also the General Medical Council.

(ii) Resolved that the following provision be recommended to Government for incorporation in the Punjab Medical Registration Act, 11 of 1916, in order to check quackery:—

(i) No Medical Practitioner in the Punjab will henceforward be entitled to prefix the words "Doctor", "Dr." to his name unless he possesses a degree of doctorate from a recognised University or possesses a medical qualification from any of the Medical Institutions recognised by the Indian Medical Council or the Provincial Medical Councils.

(ii) Any person not holding a medical qualification registrable under this Act who shall assume, display or make use of any of the medical degrees, diplomas, licences or qualifications included in the schedule under Section 13 of this Act whether used by themselves or with the addition of any prefix or suffix and whoever contravenes the provisions of this Section shall be punishable with a fine which may extend to three hundred rupees.

(Sd.) HANS RAJ,
Offg. Registrar,
Punjab Medical Council.

(Sd.) G. G. JOLLY, Colonel, I.M.S.,
President,
Punjab Medical Council.

* * * * *

APPENDIX A.

Proceedings of a meeting of the Registration Sub-Committee of the Punjab Medical Council held in the Committee Room of the Office of the Inspector-General of Civil Hospitals, Punjab, Lahore, on Wednesday, the 5th April, 1939, at 11 a. m.

Present.

Colonel G. G. Jolly, C.I.E., M.B., V.H.S., I.M.S. President, Khan Bahadur Dr. Mir. Hidayat Ullah, L.M.S., Rai Bahadur Dr. Maharaj Krishna Kapur, L.M.S., D.P.H., D.T.M. & H., Dr. Vishwa Nath, M.A., M.D., F.R.C.P.I., D.P.H., D.T.M. & H., Dr. Ch. Mohammad Nawaz, M.D., Rai Bahadur Dr. Mathra Dass, M.P.L.

1. Considered the application of Dr. Manu J. Trivedi, M.D., (Vienna) D.T.M. & H., (Eng.) D.C.H. (R.C.P. & S. Eng.) for registration in the Punjab Medical Register.

Recommended that the consideration of his application be postponed to the next meeting and an enquiry be made from him as to the reasons for his seeking registration in the Punjab Medical Register when he is practising at Poona.

2. Considered the application of Dr. Tej Bhan Dev, L.M.P., for the registration of M.D. (Munich) as an additional qualification.

Recommended that the qualification of M.D. (Munich) be registered against his name as an additional qualification.

3. Considered the application of Capt. M. H. Shah, L.M.P., for the registration of D.P.M. as an additional qualification.

Recommended the qualification of D.P.M. be registered as an additional qualification against the name of Capt. M. H. Shah in the Punjab Medical Register and that this qualification be brought on the list of additional qualifications approved by the Punjab Medical Council.

4. Considered the application of Dr. Dula Singh Bhatia, for the registration of D.P.H. (Lucknow) as an additional qualification.

Recommended that the qualification of D.P.H. (Lucknow) be registered in the Punjab Medical Register against the name of Dr. Dula Singh and that this qualification be brought on the list of additional qualifications approved by the Punjab Medical Council.

5. Considered letter dated the 20th January, 1939, from Dr. S.M. Selzer, M.D., and the remarks of Lt.-Col. Amir Chand, I.M.S., thereon.

Recommended that the papers be filed.

6. Considered letter dated the 9th February, 1939, from Lt.-Col. V. R. Mirajkar, C.B.E., I.M.S., and the remarks of Dr. H. M. Selzer thereon.

Recommended that the papers be filed.

7. Considered the explanation of Dr. Miss Sarla Vati Dewan, M.B., B.S., regarding her address which appeared in the Tribune.

Recommended that her explanation be accepted.

8. Considered the explanation of Dr. Vidya Sagar Thaper (Registered Medical Practitioner) who was sentenced to pay a fine of Rs. 10 by the High Court for unlawfully using the letters D.O. after his name.

Recommended that his apology be accepted.

9. Considered the reports of the Conference of Press Representatives held on the 19th November, 1938, with a view to put a stop to the laudatory notices appearing in the Press.

Recommended that the report of the Conference be recorded and that the question of publication of interviews with medical practitioners on health problems or other subjects connected with their profession be left open and each case be considered by the Punjab Medical Council on its merits.

10. Considered the remarks of Dr. B. J. Sahni, on a laudatory notice published in his favour.

Recommended that the explanation of Dr. B. J. Sahni be accepted.

11. Considered the explanations of Dr. Harish Chandra Suri and Dr. K. B. Kapur regarding an advertisement issued in their favour in the Tribune.

Recommended that a warning be issued to Dr. Harish Chandra Suri and the explanation of Dr. K. B. Kapur be accepted.

12. Considered the explanations of the following registered medical practitioners for the grant of certificates on the efficacy of preparation known as "Maskhorin" and published by the Maskhorin Laboratories, D. I. Khan.

(i) Dr. P. Haque, L.S.M.F.

(ii) Dr. Narain Singh Mehta, L.M.S.

(iii) Dr. Sujjan Singh Bindra, M.B., B.S.

(iv) Dr. Chuni Lal Chadha, M.B., B.S.

Recommended that their explanations in this case be accepted and they be informed that they would be well advised to exercise more care in future in giving written testimonials on patent medicines or food vide para. 20 of the code of medical ethics.

13. Considered the request of the following registered medical practitioners for the alterations in their names :—

Dr. Shanti Sarup Sharma to be altered to Shanti Swarup Basant, Capt. Ishar Singh Bhalla the word "Bawa" to be inserted before his name.

Recommended that the necessary alterations be made in the Punjab Medical Register on payment of the prescribed fee.

14. Considered a complaint against Dr. Ram Lal Marwah, for holding a license of methylated spirit and his explanation thereto.

Recommended that the Council regard his reply as unsatisfactory in that he has not given a clear answer to the question whether he is in fact selling methylated spirit to the public or using it for any other purposes than those permitted under para. 1 (f) of the Code of Medical ethics, further that he be required to give a clear answer forthwith.

xx

JOURNAL OF SOUTH INDIAN MEDICINE

15. Considered the case of Dr. Teja Singh who is reported to be associating himself with a compounder.

Recommended that the complainant be informed that sufficient evidence of Baldev Singh acting as "Doctor" under cover of Dr. Teja Singh has not been furnished and, therefore, no action can be taken against Dr. Teja Singh at present.

16. Considered, letter No. 2313/13, dated the 20th December, 1938, from the President, U. P. Medical Council regarding the acceptance of examinership by registered medical practitioners in clinical subjects at the institutions training Vaidas and Hakims.

Recommended that the matter be taken up when the actual need arises in the Province particularly in view of the fact that a Government Committee is now considering the subject of Indigenous Systems.

17. Considered letter No. 2510-M, dated the 2nd February, 1939, from the Inspector-General of Civil Hospitals, N. W. F. P.

Recommended that it is not necessary to publish separately the names of registered medical practitioners practising in the N. W. F. Province in view of the fact that a district wise index is to be added to the Annual Medical List.

18. Considered the question of publication of a Supplementary Annual Medical List for 1939.

Recommended that a Supplementary Annual Medical List be published in the year 1939.

19. Considered the request of Dr. Bashir Mahmood for the removal of his name from the Punjab Medical Register.

Recommended that Dr. Bashir Mahmood be informed that in view of the fact that a criminal case is pending against him in the District Courts at Gujranwala his request cannot be entertained.

20. Considered letter dated the 12th September, 1936 from Dr. Mohammad Sagir Ahmad Hashmi, M.B.B.S., regarding an advertisement published in his favour.

Recommended that Dr. Mohammad Sagir Ahmad Hashmi, be advised in his own interest to take all possible measures in future to avoid advertisement direct or indirect.

(Sd.) HANS RAJ,
Offg. Registrar,
Punjab Medical Council.

(Sd.) G. G. JOLLY, Colonel, I.M.S.,
President,
Punjab Medical Council.

THE
Research Laboratory,
Harris Road,
MADRAS.

Microscopical, cultural and bacteriological examinations of Blood, Sputum, Urine, Faeces, etc., done.

Widal, Wassermann and Kahn test and Complement Fixation test for Tuberculosis, etc., done.

Stock and Autogenous Vaccines prepared.

Sterile Solutions for injection always in stock.

Please apply for further particulars to:

MANAGER.



SERVICE BUREAU

The South Indian Medical Union maintains a Service Bureau for its members. It invites enquiries from you. Perhaps you require some information and you do not know where to secure it. You might wish to purchase some goods. You might like to insure your life or your motor car. You might like to engage an assistant or a technician. We will put you in touch with the right people.

We invite you and urge you to use this service. It is absolutely free to every member of the Union.

Address your communications to:—

SERVICE BUREAU,
SOUTH INDIAN MEDICAL UNION,
14, Ritherdon Road, VEPERY, MADRAS.

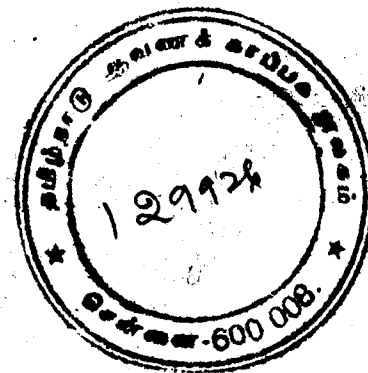
EDITORIAL BOARD

E. V. SRINIVASAN, M.B., C.M.
K. C. PAUL, M.D.
P. S. VARADARAJAN, M.D., M.R.C.P.
K. BHUJANGA RAO
U. D. GOPAL RAO

C. R. KRISHNASWAMI, M.B., M.S.
B. M. SUNDARAVADANAM, F.R.C.S.
P. RAMA RAO, D.M.R.
K. R. C. HEBBAR, M.B., B.S.
M. KRISHNAMURTHI, M.B., B.S. (Secretary)

CONTENTS

	PAGE
JULY, 1939.	
A STUDY OF TUBERCULOUS DISEASE OF THE JOINTS INCLUDING SPINE IN MADRAS	
By N. S. Narasimhan, F.R.C.S. (England & Ireland)	... 37
THERAPEUTIC NOTES	... 57
EDITORIAL	
Ourselves	... 59
ASSOCIATION NOTES	
NOTICE	



Printed at the Press & Co. (Amphill Press), Triplicane, Madras, S. E., by Manager M. S. Ekamparam.
Published by Dr. C. Zachariah, Publicity Officer, Flitcham, Marshall's Road, Egmore, Madras.