SOUTH AFRICAN ORTHOPAEDIC ASSOCIATION

CLINICAL MEETING, CORONATION HOSPITAL, JOHANNESBURG*

1. *A Case of Resistant Rickets, presented by Dr. Levin, of Dr. Falcke's Paediatric Unit*

The patient was a child aged 12 years with a history of deformities of the limbs since the age of 18 months. He commenced walking at 2½ years. It was not until he was 9 years old, however, that he was first seen at this hospital. On admission, the appearances were those of vitamin-resistant rickets. The child had frontal bossing, dental caries, enlargement of the epiphyses, and a raised alkaline phosphatase. The blood chemistry was otherwise normal. Later, the blood calcium was normal but the phosphatase was always low. He was put on calciferol and shark oil without much effect.

He has bowing of the legs and is unable to walk without calipers, and then with difficulty. At the time of the present admission he was complaining of abdominal pain and diarrhoea and had marked albuminuria. The intravenous pyelogram was normal as was urea clearance. Renal function was found to be 90% normal.

Dr. Levin asked what could be done to help the child, and Mr. Morris put the question, 'Should one straighten the limbs?'

Mr. Southgate. The deformities are not such that they warrant surgical correction. The real fault lies in his muscular hypotonia. If his muscles were adequate, he could walk in the calipers he now has.

Mr. Lunz. Concurred, in that he considered the limbs sufficiently straight. He felt that attention should be directed to the physiological aspect of the problem.

Mr. Edelstein. This is a typical case of renal rickets, but not a R.R.D. in that in the latter case, there is no renal damage, but merely a failure to utilize vitamin D. This boy, has, however, renal damage, and these are usually hopeless cases. Which type of renal rickets this is, he was not prepared to say, as such differentiation calls for a great deal of biochemical investigation. He would certainly not entertain the idea of osteotomy; this would be attacking the wrong end of the problem.

2. *A Case of Acute Osteomyelitis of Infancy, presented by Dr. Morris, of the Orthopaedic Unit*

The patient presented was admitted a year previously with a discharging sinus of the right hip, and shortening, swelling and local heat. He was treated by traction. Pus was cultured on numerous occasions and *Staph. aureus* was ultimately isolated.

This was a typical case of Tom Smith's arthritis with secondary involvement of the femoral shaft in the infective process.

At operation a sequestrum consisting of practically the whole diaphysis of the femur was removed.

Mr. Morris asked how these cases should be treated primarily and how this particular case should be treated in the future.

* Held on 22 November 1957.

Mr. Southgate. What with so many organisms being resistant to antibiotics today, the hip joint should be aspirated or drained as soon as possible in order to reduce intra-articular tension, and allow typing of the organism.

Mr. Edelstein. This was not a true Tom Smith's arthritis, in that it was a primary osteomyelitis of the femur with secondary destruction of the head of the femur and dislocation at the hip. For the rest, he was in full agreement with Mr. Southgate.

Mr. Craig stated that it was criminal not to drain the hip joint once the diagnosis had been made; in his experience at the Transvaal Memorial Hospital, only in those cases in which this had been done had the head of the femur been saved.

Mr. Lewin mentioned that 3 cases treated at the Coronation Hospital on conservative methods had done well and he felt that this should be given a chance first.

Mr. Moller: In these cases of osteomyelitis, if one happens to strike the right antibiotic one frequently gets a good response, and in such cases one should continue conservatively. One often sees in such cases a reincorporation of the sequestra. If, however, one is not managing to control the infection, one must let the pus out and, if present, sequestra must be removed.

3. *A Case of Multiple Periostitis with Eosinophilia, presented by Dr. Abramowitz, of Mr. Lewin's Surgical Unit*

The patient was a 44-year-old male, a labourer by occupation. He complained of pain in the right leg of 7 years' duration. He dated the onset of pain from some form of trauma, but was not sure whether the tibia had been fractured. There was occasional swelling of the knees. He had a fever of undiagnosed type during the War. There was a history of chest pathology with consolidation at the lung bases, which has since cleared up.

On examination the right tibia was found to be swollen and tender to percussion, with overlying distension of veins.

On X-ray esamination it was considered that the plates showed sclerosis of the cortex in the right tibia, the fibulae and femora. The same changes were to be seen in the radius and ulna on both sides.

On 22 October 1957 a bone biopsy was performed. There was no evidence of plasma cells, but there was a suggestion of areas of necrosis. Pain in the right leg disappeared after the biopsy.

All the bio-chemical tests carried out gave normal results. 24,000 white cells per c.mm. (40% eosinophils). The hydatid complement-fixation test, agglutination tests and marrow investigations were negative. Tests for specific disease gave mildly positive to negative results. The positive result was probably false.

The diagnosis that springs to mind is specific disease—either syphilis or yaws. The raised eosinophil count suggested a possibility of eosinophil granuloma. That this was a case of osteitis deformans was doubtful.

Mr. Edelstein felt that there was no abnormality radiologically in either of the femora or upper extremities, the apparent changes being due to the nature of the films. He suggested the taking of tomographs, because this might well be a case of osteoid osteoma.

Mr. Lewin. The significant feature in this case is the high eosinophilia, which so far cannot be explained.

Mr. Moller. This is a typical case of sabre tibia due to one of three causes; syphilis, Paget's disease or rickets.

Dr. Seimon. Marked eosinophilia may be a feature of syphilis.

Mr. Lewin. Eosinophilia is usually a feature of acute syphilis and in this patient the condition is certainly not acute.

Mr. Southgate. Another condition associated with eosinophilia is Boeck's sarcoidosis.

Mr. Lunz. The most significant thing is that the patient has been rendered symptom-free by the biopsy.

4. *A Case of Cystic Bony Lesions of Carpus, presented for diagnosis by Dr. Seimon, of Mr. Morris' Orthopaedic Unit*

The patient, aged 40 years, complained of pain and swelling of the right wrist of 2 years' duration with increased severity during the last 5 months. The pain was confined to the wrist. In addition, there had been pain in the left wrist during the past 5 months, but this was thought to be due to a ganglion. There was nothing of significance apart from mild arthritis in the past history.

On examination, the right wrist was found to be warm, and movement was markedly restricted. There was no sensory disturbance.

X-ray examination showed numerous cystic areas in the carpus, the base of the second metacarpal, and the end of the radius. Similar small cysts are present in the heads of the humeri.

White cells 21,000 per c.mm. (46% eosinophils). Sedimentation rate 15. Positive hydatid complement-fixation test, but negative skin test. Strongly positive W.R. Examination for ascaris in the stool and for bilharzia gave negative results. Tests for Bence-Jones protein negative. Mantox negative.

Biopsy gave no evidence of parasitic infiltration or tuberculosis, but merely suggests a villous synovitis.

Mr. Morris. The eosinophilia is probably due to syphilis or worms, and the changes in the wrist due to chronic synovitis.

Mr. Edelstein. Clinically and radiologically it looks like tuberculosis. As the Mantoux is negative, the condition is probably Boeck's sarcoidosis.

Mr. Moller said that the consensus of opinion was that this was a case of sarcoidosis, but suggested the possibility of a low-grade chondrosarcoma secondarily invading bone.

5. *A Case of Osteoporosis of the Spine and Swelling of the Leg, presented by Mr. Tanne, of the Surgical Unit*

The patient, aged 46 years, was admitted 1 week ago with pain and swelling of the right lower extremity. In April 1951 she was admitted for an epulis of the upper jaw and bronchiectasis. In February 1952 she had thrombophlebitis of the right leg and gave a history of injury to the back in 1951. It was found that her liver was enlarged and she had blood in the stools. In November 1952 she was again admitted with a fracture of the spine and osteoporosis of unknown origin. W. R. positive. In November 1954 she was again admitted for bronchiectasis and it was found that she had a positive patch test but the sputum was negative. In April 1955 she was admitted with an acute abdomen. X-ray examination revealed that she had osteoporosis of the spine with vertebral collapse.

When admitted a week ago she had pain and swelling of the right leg and thigh. There was no history of trauma, but she gave a history of bleeding from the gums and *per rectum.*

She was found to have spongy pigmented gums and a palpable liver. The central nervous system was normal except that the reflexes in the legs were rather brisker than normal. The right lower extremity was hot, swollen and tender and the inguinal glands were enlarged. There was dense brawny induration of the right calf. She has a tender lumbo-dorsal gibbus.

Investigations: Reversal of albumim/globulin ratio. No Bence-Jones protein. Gross disturbance of liver function. Reversal of neutrophil and lymphocyte ratio. Eosinophilia. Sedimentation rate 50.

Biopsy showed Gland-haemosiderosis and skin-thickening, but no other abnormality.

X-rays: Gross osteoporosis of the spine with collapse of several vertebra. Osteoporosis of the pelvis and bones of the right lower extremity.

Differential Diagnosis. Haemosiderosis: supported by gland biopsy and liver changes. (2) Scurvy: This is the probable diagnosis, being supported by limited joint movement at the knee, thickening of the skin, osteoporosis, and the fact that the original supposed thrombophlebitis was probably in actual fact haemorrhage into the muscles.

Mr. Joffe suggested the performance of a reticulocyte response test.

Mr. Morris. This is a common problem among the Bantu—the nutritional osteoporosis as opposed to senile osteoporosis in the European. They do not respond well to anabolic hormones.

Mr. Lewin. These scorbutic changes often cause severe deformities such as dislocation of the knee.

Mr. Moller. It would appear that the consensus of opinion is that this is a case of scurvy, and in such cases adequate nursing should obviate the onset of deformities.

6. *The Rehabilitation of an Amputee, demonstrated by Dr. Seimon, of Mr. Morris' Orthopaedic Unit*

The patient developed gangrene of a toe in 1952 and was found to have a positive W.R. and sub-periosteal osteitis. His right leg was amputated in 1952 and his left leg and right arm between 1952 and 1956.

The patient walks well with his lower-limb prostheses and has good control of a double-hook-type prosthesis for the right arm. He is now working in the hospital as a lift operator.

7. *X-rays of a case of Neurofibromatosis, shown by Mr. Lewin, of the Surgical Unit*

The patient had died at the age of 53 years. Many years before admission he had experienced pain in the neck with increasing

weakness. There was tenderness over the cervical spine and anaesthesia in the C3 and 4 segments on both sides. Lumbar puncture proved of no assistance in arriving at a diagnosis.

X-ray examination showed spiculated ossified substitution for the spinous processes of C3 and 4.

Laminectomy was performed and a swelling was found in relation to the laminae and spinous processes of C3 and 4. Portion of this swelling was within the lamina and was compressing the dura, while portion was without. The swelling bore no relationship to any visible nerve.

Section of the swelling showed it to be a neurofibroma containing bone. It was of the type that has malignant potential.

The patient's condition did not improve after the removal of the swelling and he has since died. At autopsy it was found that the entire spinal column was infiltrated by a spindle-cell sarcoma of neurological origin.

8. *A Case of Tuberculosis of the Spine with Paralysis of the Legs, presented by Mr. Morris of the Orthopaedic Unit*

The patient was admitted in October 1957, giving a history of pain in first one leg and then the other and later in the back, the onset having been towards the end of 1956. The legs had become progressively weaker.

On examination the ankle jerks were found to be present, but there was a flaccid paralysis of both lower extremities.

X-ray examination showed a typical tuberculous lesion at the D11/12 level with narrowing of joint space and the suggestion of a paravertebral abscess. A myelogram demonstrated a complete block.

Mr. Morris remarked that it was the first case of a purely flaccid tuberculous paralysis that he had seen.

Mr. Craig said he had dealt with a similar case who had presented with complete flaccid paralysis and anaesthesia of both lower extremities of some standing. An antero-lateral decompression was performed, and the patient made a complete recovery. In the light of this experience he suggested that the same course of treatment should be carried out in the case under consideration.

Mr. Tanne. Surely the demonstration of a complete block is sufficient indication for decompression.

Mr. Morris. The block may be due to oedema, and may not be a mechanical block.

Mr. Southgate suggested that conservatism should be tried first and, if not successful, one should then resort to surgery.

Mr. Moller suggested an early fusion to adequately arrest the lesion, with a view to later decompression.