

## SUMMARY OF PAPERS THAT WERE PRESENTED BUT WHICH ARE NOT REPORTED IN FULL

### NON-SPINAL PYOGENIC PSOAS ABSCESS

*Lam Sim-Fook, Hongkong.*

Attention is drawn to a comparatively unknown clinical entity. The clinical features, investigations, operative findings and results of treatment of twenty-four cases collected from the Orthopaedic Departments of the Queen Elizabeth and Queen Mary Hospitals, Hongkong, are presented.

Theories as to the cause are discussed and a plea is made to recognise this as a definite clinical entity.

### COMMENTS ON OSTEOTOMY OF THE SPINE

*J. Crawford Adams, England.*

With modern treatment of ankylosing spondylitis and intelligent co-operation on the part of the patient, the need for corrective osteotomy of the spine should seldom arise. Nevertheless, in the occasional case in which severe flexion deformity has been allowed to occur, wedge osteotomy can give gratifying results. Comments will be made on the selection of patients for operation, on the site of correction, on certain details of technique and on post-operative management.

### THE DISC LESION—Film

*By Torai Iwahara, Japan.*

### EXPERIENCES IN RECONSTRUCTION OF THE QUADRIPLEGIC HAND

*G. M. Bedbrook, (Perth).*

Adequate hand rehabilitation in quadriplegics can be undertaken in three ways:

- (a) Conservative care and re-development of muscles.
- (b) The use of properly designed lively splints to aid the patient in maintaining hand function and developing weak muscles.
- (c) After an initial period of six months the consideration of tendon transfers and bone blocks.

Lesions at C.5 and C.6 have little muscle potential available for reconstruction, whilst those at C.6 and C.7 have the greatest possibility of reconstruction. Those at C.7-8-T.1 need balancing intrinsic grafting.

It must be stressed that the major management is conservative by all therapists working physiologically and using modern techniques of prosthetics. Psychological factors play a big part in such management.

### THE THUMB IN LEPROSY

*J. C. Hargrave, (Darwin).*

Leprosy is endemic in Aborigines in Northern Australia. Disability of the thumb is common in lepromatous and tuberculoid leprosy but is usually more marked in the latter. Irreversible changes in the ulnar and median nerves, and occasionally in the radial nerve, produce varying patterns of paralysis and anaesthesia. Transfers of tendon restore function, but complications, such as post-operative instability of the metacarpophal-

angeal joint and contractures of the web provide serious problems. The timing of operation is discussed and also the selection of patients, their assessment, post-operative physiotherapy and rehabilitation. Surgical correction of deformity of the thumb is less complicated, more gratifying and usually more important to Aboriginal patients than correction of other concomitant deformities of the hand in leprosy.

### EPIDURAL ABSCESS SIMULATING DISC HERNIA

*B. T. Keon-Cohen, (Melbourne).*

Four cases of epidural abscess at the lumbosacral level are reported. All presented with clinical manifestations strongly resembling disc hernia. One only was diagnosed pre-operatively. All were subjected to operative treatment.

The aetiology of epidural abscess is discussed. Problems in diagnosis, and in particular the importance both of early diagnosis and operative treatment are emphasised. The literature on the subject is briefly reviewed.

### HAEMANGIOMA OF THE VERTEBRA

*D. J. Roebuck, (Hobart).*

Haemangioma of the vertebra is a lesion which for some years in many places has been treated by radiotherapy. A series of 15 cases observed after irradiation for periods ranging from 5-16 years are examined. The effects on the patient's symptoms and the radiological changes following irradiation are examined and discussed. Evidence is presented that clinically irradiation does not seem to be superior to other methods of therapy and that on occasions can actually cause harm.

### OSTEOTOMY OF THE UPPER FEMUR FOR ADVANCED OSTEOARTHRITIS OF THE HIP JOINT

*B. J. Dooley, (Melbourne).*

The natural history of unoperated osteoarthritis of the hip joint and the bibliography dealing with osteotomy of the femur are briefly discussed.

This paper deals with a personal series of 38 hips operated on between 1958-1965 for severely painful osteoarthritis of the hip joint. An adduction, flexion and external rotation deformity was present in most cases. Medial displacement of the shaft of the bone and correction of the deformity were achieved, and the osteotomy fixed with a trifin nail and Tom King osteotomy plate.

Pain relief was obtained in ninety per cent of unilateral cases, but the results in bilateral cases were usually disappointing. Operative complications were minimal and included one deep infection, one thrombophlebitis without embolism and one temporary lateral popliteal nerve palsy. Non-union of the osteotomy was not encountered and the probable reasons for this given. Although symptomatic relief was achieved by the operation in most cases it is felt that the natural course of the disease process is not altered, in that stiffness remains, the radiographic changes often progress, and some go on to natural arthrodesis.

### A REVIEW OF 100 CASES OF LEGG-CALVE-PERTHES SYNDROME TREATED BY RECUMBENCY

*W. J. Cumming, (Sydney).*

A review of one hundred cases of Legg-Calve-Perthes Syndrome is presented.

A major interest of this group of cases is that the patients have been uniformly managed by a conservative method involving prolonged frame recumbency until a stage of regeneration of the capital epiphysis appears to have occurred then followed by weight relieving apparatus. All patients in this review have ceased active treatment for more than five years at the date of review and as many as possible are old cases. Patients were located by mail after a search of the oldest available records in the Royal Alexandra Hospital for Children and a detailed questionnaire forwarded to those who agreed to cooperate. This was followed by the personal attendance of each patient for X-ray and full physical examination.

The method of assessment of the results of treatment is a combination of clinical and radiological factors. The clinical factors assessed were the patient's symptoms and functional capacity plus the results of physical examination. The radiological assessment includes the use of the epiphyseal quotient described by Heyman and Herndon.

Review of available information including original records and X-rays confirmed the diagnosis in each case. These records plus recent questionnaire information afforded a detailed review of each case. This group of patients has agreed to attend each ten years for future review and patients who appeared unlikely to be able to do so were excluded. In this manner a satisfactory group of patients in whom to observe the ultimate fate of the disease managed by this method may be obtained. The questionable value of prolonged recumbency and later avoidance of weight bearing in this disease, particularly when considered in the light of the possible consequences, both physical and psychological, of such treatment, stimulate a need for full assessment of the facts regarding this form of management. The results revealed in this survey further elucidate this point.

### ETIOLOGY AND LONG TERM FOLLOW-UP OF PERTHES DISEASE

*A. F. McSweeney, (Brisbane).*

Highlights in the literature of Perthes Diseases are presented including early descriptions of the condition and theories of aetiology. How studies of the blood supply to the femoral head have influenced our views is indicated. A small personal series with long term follow-up is presented with comment on the significance of moulding of the head within the acetabulum following treatment respectively by recumbency and weight-relieving calipers.

### PITFALLS IN MAJOR PROSTHETIC REPLACEMENT OF BONE

*H. Jackson Burrows, England.*

In 14 years work in collaboration with Dr. J. T. Scales at the Institute of Orthopaedics, Royal National Orthopaedic Hospital, London, many lessons have been learnt. Difficulties have been encountered in relation to joints, materials for prosthesis and articular surfaces, design of implants, sepsis, and in particular lasting fixation of prosthesis to bone, the latter depending upon a proper regard for certain biological and mechanical principles. Methods of avoiding these difficulties have been developed. The conclusion arrived at from this work will be discussed and a short film shown of what may be achieved.

### ON FRESH FRACTURES OF METACARPAL AND PHALANGEAL BONES

*Yuzo Goto and Sadao Kira, Japan.*

180 cases of fractures involving either the metacarpal or phalangeal bones were seen among 1,250 cases of injuries of the hand.

The treatment of such fractures will be discussed.

### AN ALTERNATIVE METHOD OF TENDON TRANSPLANTATION FOR CORRECTION OF FOOT-DROP FOLLOWING LATERAL POPLITEAL NERVE INVOLVEMENT

*A. Grace Warren, Hongkong.*

A new method of using the tibialis posticus transplant to correct foot drop will be described and its advantages over the conventional method of transplanting the tibialis posticus will be discussed.

### SURGERY IN POTT'S PARAPLEGIA

*M. K. Goel, India.*

This paper is presented on a study of 58 cases of Pott's paraplegia for which radical decompression was done between 1957 to 1963 in the Department of Orthopaedic Surgery, K.G. Medical College, Lucknow, India. The purpose of this paper is to discuss the type of decompression, the pathology found and the factors which affect the prognosis in cases of Pott's Paraplegia.

### ISCHAEMIC CONTRACTURE OF LIMBS DUE TO TIGHT SPLINTAGE

*N. D. Aggarwal, India.*

Varying degrees of Ischaemic Contracture of limbs after closed injuries and tight splintage are more common than supposed. Observations of 68 cases of Ischaemic contracture of limbs due to tight splintage (58 cases of upper limbs and 10 cases of lower limbs) were reviewed as to their etiology and pathology. The management of 25 cases will be discussed.

### OLD DISLOCATION OF ELBOW AND ITS MANAGEMENT

*Pretam Singh, Malaya.*

### ISCHAEMIC NECROSIS OF THE FLEXOR MUSCLES OF THE FOREARM

*J. S. Roarty, Sydney.*

An operation is described to improve the function of the hand in cases of moderate severity resulting from Volkmann's Contracture. Adequate periods of management with splinting and increasing exercise and passive stretching had been tried. It is indicated in those cases with mobile joints in all fingers.

It involves a dissection of the deep compartment of the forearm with release of the attachment of the flexor digitorum profundus and flexor pollicis longus from the radius and ulna, and most important, the adjoining interosseous membrane.

It is a modification of the Max Page Slide, and has given good results. Over-correction in the early post-operative phase is contra-indicated. The early management and reports of cases of acute brachial artery occlusion are also discussed.

### SOME OBSERVATIONS ON MODERN TRENDS IN THE MANAGEMENT OF CONGENITAL DISLOCATION OF THE HIP

*J. Rowland Hughes Oswestry*

Simple reduction in the early post-natal period consistently results in perfect concentricity. The greater the time interval that elapses, the greater the secondary adaptive changes, all or some of which may affect the degree of concentric reduction and subsequent development.

The suggestion that one factor is largely to blame is much too naive to be near to the truth. The relative importance of some intrinsic obstructions to reduction are alluded to in the light of personal experience, and views on the optimum position of rotation necessary to maintain reduction are put forward.

Concentric development of the joint ultimately depends upon the potential adaptability of the acetabulum, to the size, shape and axis of the femoral head and neck, in the presence of inherent joint laxity.

The implications of variations in axial rotation and inclination of the neck are discussed in relation to modern trends on osteotomy of the femur and the pelvis.

### A SURVEY OF PROSTHETIC REPLACEMENT FOR FRACTURES OF THE NECK OF THE FEMUR

*Emmet Spring, Melbourne.*

The high failure rate of the Smith-Petersen pinning operation for fractures of the neck of the femur has stimulated interest in procedures such as prosthetic replacement.

This paper reviews the operations over a period of five years at Prince Henry's Hospital, Melbourne. In the initial phase an attempt was made to obtain a comparable series by alternate pinning and prosthetic replacement.

It was found that the mortality rate for the Moors Arthroplasty was appreciably higher than that for the pinning procedure. An attempt has been made to determine the reason for this and if possible to improve it. Some comparative figures from other writers are given.

The prosthetic operation has very important advantages over the Smith-Petersen pin, but the ideal situation would be one in which an accurate forecast could be made of the viability of the femoral head.

### QUADRICEPS CONTRACTURE AND ITS RELATION TO HABITUAL DISLOCATION OF THE PATELLA

*P. F. Williams, Melbourne.*

Quadriceps contracture is surprisingly common in paediatric practice and presents in a variety of ways.

Congenital recurvatum in infancy, progressive loss of knee motion and habitual dislocation of the patella all have a common basic pathology, although the etiology may be different in each group.

In this paper 48 cases are analysed and the operative details in 33 quadricepsplasties are described and illustrated.

The relationship between the various groups and the possibilities of causation are described.

### CHONDROMALACIA OF THE PATELLA

*J. Jens, Ballarat.*

A series of cases of chondromalacia of the patella is discussed, with special emphasis on causation and patho-

logy. The graduations in the severity of the condition and the application of the clinical features to diagnosis and severity, are correlated. The detailed pathology for the various degrees has a bearing on the clinical picture. The radiological aspects are important. The routine of treatment is detailed.

### SURGERY OF CEREBRAL PALSY

*B. C. Bracken, Sydney.*

In general, surgery in cerebral palsy has been limited to the hypertonic or spastic child. The surgical approach has been tentative and querulous and limited to a few standard procedures. Surgery is often left until adolescence, despite increasing disability since early years.

The surgery of cerebral palsy in the past has been guided by general principles governing the management of contracture and deformity, which while valid in themselves, do not apply in large to this peculiar neurological disease.

Stretch applied against spastic muscles reflexly causes increased tone in that muscle, and often in adjacent segmental muscle groups, and may even influence muscles in the opposite limb. Prolonged pressure on joints by these methods causes degeneration of articular cartilage, joint degeneration and stiffness. In the hip joints muscle imbalance and stretching combine to accelerate hip dislocations.

The basic neurological problems are well described by K. Bobarth and his papers are worthy of study by surgeons in this field.

It is far better to release contracted muscles than stretch them once contracture is established. Tendon transplantation is worthwhile and effective if muscle balance is properly assessed. Simple psoas muscle release with or without adductor tenotomy will prevent dislocation of hips if it is done before frank dislocation occurs.

Gastrocnemius contracture is as common as pure soleus contracture or mixed forms. In the former, a gastrocnemius slide gives an excellent result. Tibialis posterior transplantation to the dorsum of the foot through interosseous membrane will correct some equinovarus feet where there is sufficient gastrosoleus spasm to balance the transplant. Hamstring contracture is overcome by open lengthening of all hamstring muscles as soon as it becomes apparent and Eggers operation is not superior to this.

In the arm, transplantation of flexor carpi ulnaris to the extensors helps the ulnar deviated and flexed wrist and hand. Flexor slide at the elbow is often helpful, as also may be lengthening of biceps tendon.

Illustrated by slides of cases so treated.

### BONE CHANGES IN THALASSAEMIA AND ALLIED HAEMOGLOBINOPATHIES

*Gordon Colvin, Sydney.*

Haemoglobinopathy is an hereditary condition in which there occurs an abnormal type(s) of haemoglobin in the blood. There is suppression of formation of normal haemoglobin due to an interference with one or other of the polypeptide chains.

Thalassaemia is the most widely distributed of the haemoglobinopathies. The main areas are namely Italy, Sicily, Sardinia, Greece, Cyprus, Turkey, part of North Africa and South-East Asia, India, Burma, Thailand and Indonesia.

Onset is insidious—patient develops lethargy, anaemia, splenomegaly, etc., and tend to have Mongoloid features and look like other patients rather than like members of their own family.

Haemoglobin estimations carried out by electrophoresis show increased amounts of foetal haemoglobin (Hb F) and haemoglobin A2 (Hb A2).

Radiological bone changes include degeneration of femoral heads, reduction in thickness of cortex in long bones with increase in medulla, failure of tubulation in long bones, increase in bony trabeculation which in the spine are vertical without vertebral collapse, squaring of metacarpals and metatarsals and in the skull an increase in the diploe with radiation (hair on end) spicules with loss of antral and sinus formation. Sickle cell anaemia, another haemoglobinopathy, has HbS present. Previously not thought to show bone changes in 1966 proven to be responsible for aseptic like changes in the femoral heads.

A further condition in which bone changes of a peculiar type occur is Mediterranean Sea Disease in which HbC is present. Symptoms in this condition may be slight and the central erosion type of lesion often defies diagnosis and is confused with Perthe's Disease or osteochondritis dissecans unless electrophoresis is performed on the patient and parents.

With increasing immigration from countries where haemoglobinopathies are endemic, it is becoming obligatory for the Australian practitioner to acquaint himself with these diseases.

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#### THE SIGNIFICANCE OF THE CORACO-CLAVICULAR JOINT

*V. K. Pillay, Singapore.*

The coraco-clavicular joint has been thought to be a rare anomalous and perhaps an atavistic joint. The author having studied the condition at autopsy and radiologically, has shown that articulation between the clavicle and coracoid is seen in a third of humans.

The significance of this will be discussed.

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#### CHONDROMALACIA PATELLAE AND ITS SURGICAL TREATMENT

*L. MacKenzie-Crooks, England.*

A discussion of chondromalacia patellae with particular reference to the surgical treatment and a review of a series of cases with reduction of the femoral ridge is presented.

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#### SKIN ARTHROPLASTY OF THE HIP

*D. R. Gunn, Singapore.*

It will be suggested that interposition arthroplasty with full thickness skin has a place in the salvage of hips badly damaged by tuberculosis.

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#### POST SMALLPOX OSTEOARTICULAR LESIONS

*M. K. Goel, India.*

In this paper a clinical study was done on 40 cases of post smallpox osteoarticular complications seen in the Department of Orthopaedic surgery, K. G. Medical College, Lucknow over the past 3 years. These lesions were most commonly seen in children below the age of five. Practically all of them were unvaccinated. Sudden symmetrical involvement of the joint was the usual presenting feature.

The clinical features, investigations and treatment of their lesions are discussed.

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