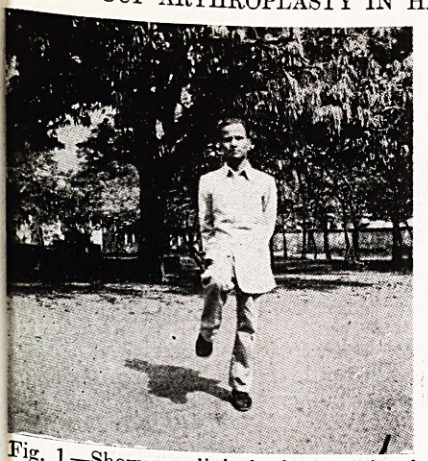

Fig. 1.—Shows a clinical photograph of the case 4 months after the operation and shows the range of flexion of the hip and the knee.

Fig. 2.—Shows the range of abduction of the hip.

Fig. 3.—Shows the range of extension of the hip.

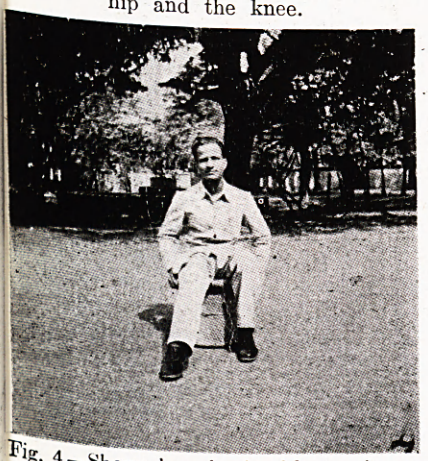

Fig. 4.—Shows how he is able to sit on a stool.

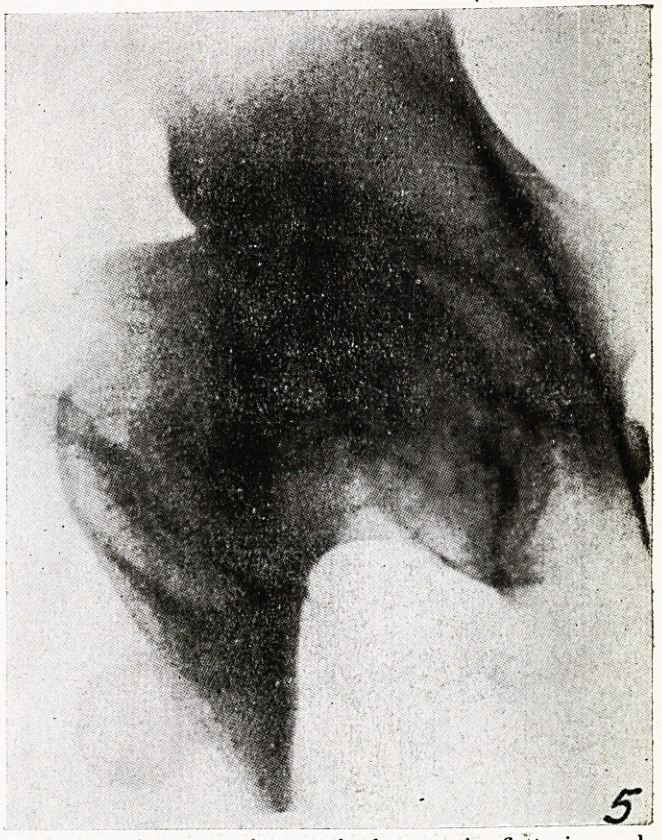

Fig. 5.—Is the *x*-ray photograph showing the flattening and the mushroom-shaped head with marked lipping.

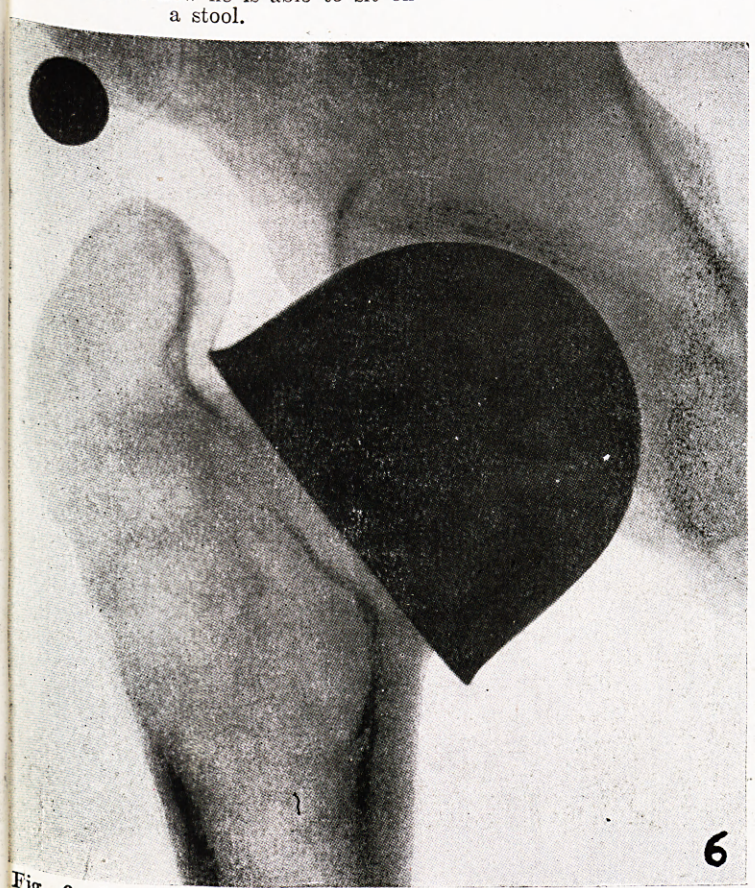

Fig. 6.—Is an *x*-ray photograph showing the results of the cup arthroplasty after 4 months. It is difficult to see the osteotomy line after fusion of the trochanter with the shaft.

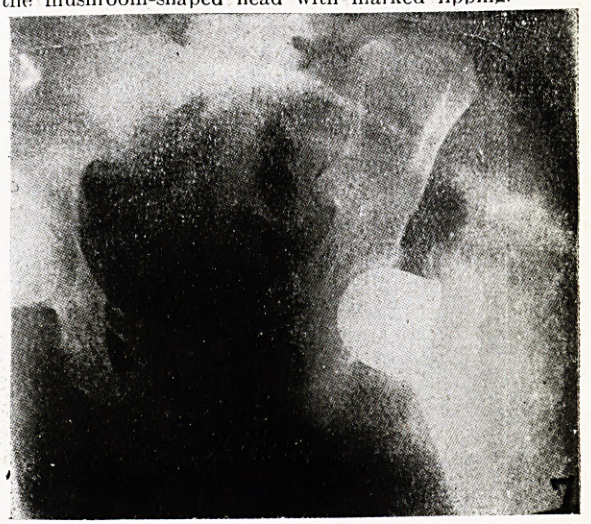

Fig. 7.—Is a reduction print of an *x*-ray photograph which is reversed by the photo-artist during reduction printing. This shows the Shenton's curve slightly exaggerated.

CUP ARTHROPLASTY IN HIP JOINT SURGERY

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INFLAMMATIONS of various sorts occur in the hip joint. Traumatic conditions damaging the head, neck of the femur and the acetabulum are also commonly found. These lead to limitations of movement initially and later to fixity of the joint, ultimately ending in bad deformity. The resulting deformities due to neglect and ignorance afford opportunities for advanced surgery on the hip joint. Fixity and bad deformity cause great inconvenience especially among Indians who are accustomed to squat on the floor.

Infective arthritis of the hip resulting in ultimate fixation of the hip, arthritis of infants causing absorption of the head and neck resulting in shortening of the limb with a pathological dislocation, Perthes' disease which causes changes in the head and neck, various types of traumatic dislocations of the hip which after reduction lead to osteo-arthritis, central dislocation of the hip causing osteo-arthritis in most cases, unreduced dislocations of the hip and ununited fractures of the neck of femur—all these afford serious problems. Tubercular disease of hip is not included in this paper as it is a problem by itself. The following disabilities may occur :—

From very slight diminution of movement to complete fixation with a deformity varying in type and associated with pain is a constant feature. Of these sequelæ Perthes' disease and osteo-arthritis afford special problems which under modern conditions are amenable to treatment to improve the range of movement and get rid of pain.

Many operations have been designed, of which oblique osteotomy of McMurray, arthrodesis, arthroplasty and reconstruction of the hip are the methods employed with the object of—

(*a*) abolishing the pain,

(*b*) increasing the mobility of the hip in some cases, and

(*c*) improving the functional value with stability by altering the axis for weight bearing.

In McMurray's osteotomy, in addition to correction of deformity, absorption of osteophytes occurs in cases of osteo-arthritis perhaps due to mobilization of calcium from these osteophytes during the healing of the fracture in this type of osteotomy.

All these operations have abolished pain and in some cases increased mobility and in most cases stabilized the hip after correcting the deformity. In recent times, Smith-Petersen (1948), a pioneer worker in advanced hip joint surgery, has introduced a new operation of cup arthroplasty. His technique of exposure of the hip joint is too well known and requires no repetition. However, a few personal observations in technique deserve special mention. A large number of cases deserving this type of operation was seen in Madras but it was difficult then to get the necessary vitallium cups. However, early in January 1948, vitallium cups of various sizes were imported from America and opportunities occurred to try cup arthroplasty.

The first case tried was in a young man aged 25 years who had suffered from Perthes' disease early in life causing changes in the head and neck of the hip. He sought advice for

(*a*) pain in the hip,

(*b*) limitation of movement markedly in internal and external rotation and also in flexion and abduction, and

(*c*) fatigue after walking which interfered with his occupation as a canvassing agent.

X-ray showed a flattened mushroom-shaped head (figure 5, plate VII). He was advised cup arthroplasty to which he consented and the operation was performed with the technique given below :

Lateral incision of Jones' type was used and the gluteus maximus was split in the direction of its fibres exposing the great trochanter with the attached muscles and the upper part of the origin of the vastus lateralis. The latter muscle was detached and the upper aspect of the femur 2 inches below the lower margin of the great trochanter was defined. The trochanter was sliced taking a big chunk of bone with the attached muscles displaced upwards. The front and posterior aspect of the neck was carefully defined and the capsule was cut on the antero-superior surface in the axis of the neck and the hip dislocated. The head was trimmed and cartilage removed with a Jones' broad gouge and the end smoothened with a file having no special reamers for this purpose. A vitallium cup fitting snugly on to the head and neck without constriction and pressure was selected and used. The great trochanter was wedged into a chink prepared by raising a thin ledge of bone on the lateral aspect of upper end of shaft of femur at a lower level and fixed by thick linen thread sutures through drill holes to the shaft of the femur. The capsule and the muscles were carefully sutured with linen thread. The wound was sutured in layers and the limb was put in plaster of paris in slight abduction. The patient made an uneventful recovery. The sutures were removed at the end of a fortnight and the plaster at the end of six weeks.

Discussion

Smith-Petersen's (1948) cup arthroplasty is a distinct advance and is definitely useful in

restoring movement in hip joint surgery. According to his technique and approach the trochanter is untouched. It is pointed out that after trimming the head to the required extent there is shortening of the neck thus altering the mechanics of the hip joint. This becomes evident by a study of the Shenton's line in radiograms seen in the pictures. Such being the case it is surmised that prolonged weight bearing will cause a certain amount of disability due to strain on the gluteii. Therefore it was thought advisable to modify this operation by using Jones' technique of approaching the joint as in the case of pseudo-arthrosis and giving a lower insertion to the gluteii to restore the Shenton's line to as far as possible to normal, to give a better ' point de appuii ' and thus improve the mechanics of the joint. In the case under report there is a slight exaggeration of the curve of Shenton's line (figure 7, plate VII).

This case is reported to show the results of such an attempt 4 months after operation (figures 1, 2, 3, 4 and 6, plate VII). This range will improve with function.

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A Mirror of Hospital Practice

SEXUAL DISORDER IN 'MEPACRINE PSYCHOSES'

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THE development of violent mental psychoses following administration of mepacrine in a small percentage of patients suffering from malaria is now an established fact. Quite a large number of such cases have been reported in the medical press.

So far as our information goes, no case has been reported where such mental symptoms developed following administration of mepacrine for the treatment of intestinal infestation by giardia. We have had the opportunity of dealing with two such cases. One case (case 'A') was seen and treated by one of us (K. B. K.) at Lahore in 1946 and the other case (case 'B') was seen and treated by both of us recently (September 1949) in Simla. A summary of the main symptoms, laboratory findings, other investigations, treatment and ultimate outcome is detailed below :—

Case 'A'

Hindu male, 36 years, married, thin built, insurance agent by profession, temperamentally of a highly strung and nervous nature, leading a very unhappy domestic life. He had attempted suicide three times.

The patient suffered from frequent attacks of diarrhœa for two years. Repeated stool examination showed giardia infestation. He was treated by a colleague with mepacrine one tablet t.i.d. On the 4th day (after having taken 11 tablets of mepacrine) the patient was observed to be more talkative and a little outspoken by his wife. He passed rather restless night and was mostly awake. The mepacrine treatment was continued. The symptoms were aggravated by the afternoon of the following day (after 14 tablets had been taken). The patient was extremely talkative discussing every conceivable topic. He was however neither aggressive nor abusive. The patient was examined by one of us (K. B. K.). After greeting the doctor with unusual eloquence and formality he suddenly slipped into a discussion regarding widely different subjects and at times became incoherent. He talked very highly about himself and specially about his sexual powers and capacities. He appeared excited, his conjunctivæ were injected and face somewhat flushed. There was no yellow tinging of skin or conjunctivæ. Tongue appeared moderately coated and moist. Temperature, pulse, respiration, etc., were all within normal limits. Blood pressure was somewhat raised. Blood examination showed total and differential white cell count as well as total R.B.C. and hæmoglobin to be within normal limits. Urine showed presence of traces of mepacrine. (Exact figures are not given on account of the loss of records in Lahore.) No other abnormality was observed.

Treatment given.—Mepacrine was stopped. The patient was given one ampoule of Dial (Ciba) intravenously (0.2 gm. in 2.3 cc.). The patient remained as boisterous and talkative. He showed signs of extreme sexual excitement as indicated by the fact that he tied down his wife to a bed and repeatedly forced himself on her till she swooned. He had to be removed forcibly. Dial, one ampoule (0.2 gm.), was