

DDH ; Treatment in Japan

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1. Birth-3month:

In Japan, the new born infant check-up has been carried out at public health center in almost cities. And also, pediatrician are concerned with chek-up system. At the time of 1950, Tohoku University group was very eager for new born infant check-up system. After 1960 this system was popularized in all over the country. If the new born infant with doubtful hip problem is detected, he is consulted to orthopaedist. In general, following two points are recommended.

- 1) The hip joint is maintained with abducted position by setting the diaper.
- 2) The cover of diaper should be worn in loose, not in tight. Ishida from Kyoto University emphasized the importance of these points (Fig. 1).

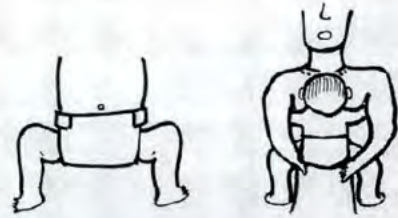


Fig. 1 Hip joint should be maintained with abducted position

2. 3-6months:

Pavlik harness (Riemenbügel) is indicated in almost DDH cases (Fig. 2). In 1957, Suzuki from Nagasaki University introduced Pavlik harness into Japan for the first time. Until then, manipulative reduction had been carried out for a long time. Results on manipulative reduction was relatively good. Over 40 years follow up cases show this point (Fig. 3). But forced reduction and long time casting are not desirable, avascular necrosis is generated frequently.



Fig. 3 : 43 years follow up case (Bilateral DDH).

Advantages of Pavlik harness are not only atraumatic to the femoral head, but also available for the regular outpatient treatment. Reduction rate of dislocated hip treated by Pavlik Harness is 70-80%. In 1976 Ueke and Nagoya city hospital group proposed "re-putting of Pavlik Harness" for irreducible hip. Some of cases are reduced successfully.

3. Over 7 months:

Traction treatment for DDH patient was proposed by Craig in 1950, by Mau in 1956. This method was introduced into Japan in around 1960. Now traction method are indicated for over 7months DDH patients. Four to eight weeks traction is required to get reduction. Fortunately, traction treatment is easy to be carried out, because hospitalization charge is not expensive in Japan. There are two methods. One is horizontal traction (Fig. 4), another is over head traction (fig. 5). In the former method, slight manipulative reduction is required at the end of traction. In the latter method, almost cases are reduced spontaneously.



4, Irreducible cases

Open reduction is indicated for the irreducible cases with conservative treatment, severe unstable cases, or missing cases. The anterior approach by Sommerville or especially in Japan the medial approach by Ludloff has been used favorably for a long time. However the follow up results of open reduction are not so good due to poor acetabular development or coxa magna. Recently, Okayama University group proposes open reduction by extensive anterolateral approach. They reports excellent results on open reduction which method is to attain concentric reduction of the femoral head by complete circular incision of joint capsule (Fig. 6).

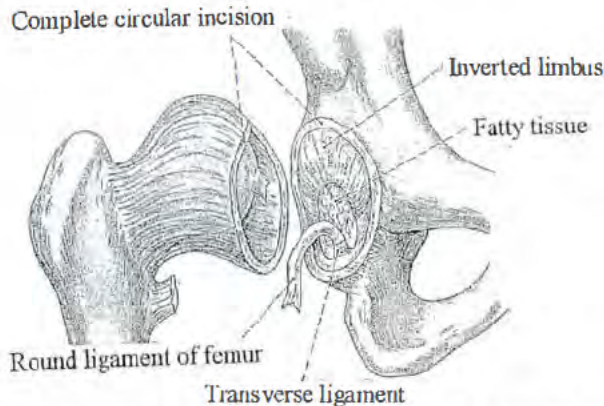


Fig. 6 : Complete circular incision of joint capsule by extensive anterolateral approach