

AO 31A2.2 以及 2.3 股骨轉子間骨折之手術固定：
支撐鋼板加強與單純動態式髖部骨釘之比較

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Buttress Plate Augmentation in Surgical Treatment for AO 31A2.2 and 31A 2.3
Unstable Femur Intertrochanteric Fracture: A Comparison with DHS Alone

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Introduction: The dynamic hip screw (DHS) continues to be one of the most commonly used implants worldwide for the treatment of trochanteric hip fractures. However, in AO 31A2 fractures, DHS alone may result in poor outcome if indication is not chosen carefully.

Materials and Methods: We retrospectively collected 72 patient who recieved surgery with DHS+buttress plate fixation at our institute from 2006 to 2011. 29 patients were selected for AO 31A2.2/2.3 and enough follow-up (at least 6 months). In control group, we reviews 210 consecutive patients who recieved surgery with DHS fixation alone at our institute for proximal femur fracture from 2005 to 2006. 30 patients were selected for AO 31A2.2/2.3 and enough follow-up.

Revision rate is compared. Radi ographic parameters as shortening/impaction distance, neck-shaft angle, and tip-to-apex distance are collected.

Results: A mean of 2.8 mm shortening in DHS+buttress group comparing to 17 mm in DHS group is noted. Tip-to-apex distance in both group (21.6 mm vs 22.2 mm) is compatible and they are all within 25 mm which indicates sufficient lag screw fixation. Neck-shaft angle is also compatible (140° vs 139°), and is maintained during follow-up. The revision rate is 3.5% (1/29) in buttress group and 17% (5/30) in DHS group.

Discussion: Shortening is significantly prevented in buttress group. Most shortening occurs within the first 3 months with an average of 17mm shortening noted in the control group. Müller-Färber et al. found an association between the extent of screw sliding and postoperative mobility: an average screw sliding of 13.4 millimeters resulted in a lower mobility level.

Revision rate is also lower in the study group. It has been reported that DHS alone in unstable type intertrochanteric fractures with osteoporosis had a failure rate of more than 50%. AO foundation suggested proximal femoral nailing or DHS+trochanteric stabilizing plate (TSP) for unstable type fractures.

An additional buttress support can significantly prevent shortening and failure rate in the unstable type of femur intertrochanteric fractures.

The Clinical Result using Locking Plate in Periprosthetic Supracondylar
Femur Fracture

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Introduction: Periprosthetic supracondylar femur fractures after total knee arthroplasty (TKA) is a rare but challenging problem. The benefits of locked plating for these injuries are not universally agreed. This paper presents a retrospective series of patients who sustained a periprosthetic femur fracture treated in our institution with locking plate. The purpose of the article is to review the clinical result using locking plate in periprosthetic supracondylar femur fracture.

Materials and Methods: We had retrospectively review 11 patients who underwent locking plate fixation from Sept 2006 until Sept. 2011. All the patients were followed up for at least 10 month (10 months to 5 years). The peri-operative data, knee society score, revision rate, union rate and union time were recorded and assessed.

Results: The average age of patients is 70.7 years old. The average time for bone union was 4.3 month. There is no case of non union. The implant failure rate was 9% (1 case). The mal-union rate is 9% (1 case) with varus deformity. There is no complication of infection. Rate of revision surgery was low (2 patients). After excluding other cause for morbidity (eg. Stroke, spine lesion), the mean knee society score after operation was 83.85.

Discussion: Locking plating is a reliable treatment for periprosthetic supracondylar femur fractures. It provides good fixation in osteoporotic periprosthetic fractures of the femur. It restores a stable limb allowing early weight bearing as well as achieving clinical and radiographic union. We experienced a lower complication, revision, mal union, and nonunion rate with locked plating versus conventional treatment options.