

Treatment of fractures of the lateral neck femur in elderly: our first experience with a new anatomical nail

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Introduction There is a continuous progress in the study and development of new materials in the treatment of the lateral femoral neck fractures, both stable and unstable. A new generation titanium anodized, anatomical intramedullary nail has recently been developed: the cervical-medullary Zimmer Natural Nail (Zimmer, Warsaw, Indiana, US). It presents a lateral offset of only 4° to facilitate trochanteric access. It is present in two versions, short and long, different diameters and various degrees of neck-shaft angle are available to better match the individual anatomy of the patient. The diaphysal part has spiral grooves. The system includes a screw cephalic LAG to 10.5 mm diameter with threaded end in TMT (Trabecular Metal Technology).

Materials and methods From August 2010 to date we have been treating 154 subjects over 65 years (min. 65–max. 96), of which 58 men and 96 women suffering from fracture of the lateral femur neck. All patients were classified according to the AO/OTA classification.

The time elapsed between the arrival at the hospital and surgery was 80% of cases of 24–72 h. The average time of surgery was 45 min (20–70 min). Physical rehabilitation was started immediately post-operatively and partial load was granted, when the conditions of the patient allowed during the first 3 day.

Results The intraoperative complications were 2 cases of error in position of the screw cephalic and 1 case of shaft fracture in a patient with a very narrow shaft. The follow-up was a 1, 3 and 6 months and it was possible to control only 40% of patients and this is due to the increased mortality linked to old age and to the difficulty to introduce controls subsequent outpatient due to health issues and social these patients. All fractures healed on average 45 days. The late complications were 1 case of cut-out (due to an incorrect positioning of the cephalic screws), 2 cases of wound infection healed without additional surgery.

Conclusions In conclusion, although the casuistics is still small, we discuss the best treatment of lateral fractures of the femur neck, stable and unstable, in elderly. ZNN nailing allows to perform a surgical access of only 3–4 cm with little blood loss and, thanks to the anatomical shape, it is able to guarantee good stability, allow immediate mobilization and rehabilitation start for a rapid functional recovery.