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122 Outcomes in Young Adult Patients with Intracapsular Femoral Neck Fractures

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Aim: The aim was to evaluate short- and long-term outcomes for young adult patients undergoing fixation of their fracture. However, one in four experienced a complication, resulting in inferior long-term function and health-related quality of life. Time to surgery and fracture reduction were significantly associated with complications.

Method: From 2008–2018, we retrospectively identified 112 consecutive patients (mean age 48yrs [20–60], 54% male). Complication details were determined from medical records and radiographs. Long-term patient-reported outcomes – including Oxford Hip Score (OHS), Forgotten Joint Score (FJS), EuroQol 5-Dimension (EQ-SD)/Visual Analogue Scale (EQ-VAS) and UCLA Activity Scale – were obtained via telephone survey.

Results: Union occurred in 77% (n=86/112) at a mean of nine months (3–87). Complications occurred in 23% (n=26/112), including fixation failure (5.4%, n=6/112), nonunion (4.5%, n=5/112) and AVN (14.3%, n=16/112). Alcohol excess (p=0.04), time to surgery >24hrs (p=0.023) and fracture malreduction (p=0.002) were associated with complications. Overall, 35% required further surgery, including metalwork removal (18.8%, n=21/112), total hip replacement (18.8%, n=21/112) and excision arthroplasty (1.8%, 2/112).

Long-term outcomes were obtained for 72% (n=81/112) at a mean of 6.9yrs (2.8–12.8). The mean OHS was 41.4 (4–48), FJS 63.3 (0–100), EQ-SD 0.823 (-0.59–1.0) and EQ-VAS 79.5 (5–100). Mean EQ-SD was significantly lower than population controls (p=0.005). The mean UCLA score fell from 6.8 pre-injury to 6.0 post-injury (p<0.001). Patients with complications had significantly lower OHS (p<0.001), EQ-SD (p=0.001), EQ-VAS (p=0.01) and UCLA scores (p=0.001) compared with those who united uneventfully.

Conclusions: Most young adult patients united following fixation of their fracture. However, one in four experienced a complication, resulting in inferior long-term function and health-related quality of life. Time to surgery and fracture reduction were significantly associated with complications.