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Capsulectomy or capsule repair? Histopathological evidence of anterior capsule disease in hip joints undergoing hemiarthroplasty for trauma

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**Introduction:** There is ongoing debate over whether to remove or repair the anterior ligamentous capsule of the hip joint during hemiarthroplasty following trauma, the latter being encouraged by certain techniques. We hypothesized that there is some degree of histopathological disease in the anterior capsule of these hips which may impair future range of movement and long term post-operative outcomes.

**Aim:** The aim of this study was to find evidence of chronic inflammation in the ligamentous joint capsules of hips undergoing hemiarthroplasty for trauma.

**Methods:** 30 patients undergoing hemiarthroplasty within 48 hours of an acute hip fracture were selected for this study. Samples were obtained from the anterior capsule of their hip joints intraoperatively and examined for histopathological evidence of disease and inflammation. Patients who had undergone previous surgery on the ipsilateral hip were excluded from the study.

**Results:** 73% of study participants were female with a mean age of 74. The most common mechanism of injury was a mechanical fall. All samples evaluated were positive for fibrosis indicative of a chronic disease pattern. The joint capsule samples lacked signs of acute inflammation which one may expect in the immediate post traumatic period following fracture.

**Conclusion:** It can be concluded that there is an evidence of histopathological disease in hip joint capsules undergoing hemiarthroplasty for trauma the repair of which may impact future outcomes for patients undergoing these procedures. Further studies should be undertaken to determine the impact on range of movement and long-term satisfaction of patients following capsule repair in contrast to capsulectomy.

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