Alcohol intake and the risk of osteonecrosis of the femoral head: A dose-response meta-analysis of case-control studies

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Background: Studies examining the association between alcohol intake and the risk of Osteonecrosis of the Femoral Head (ONFH) have inconsistent results. The purpose of this study was to examine and summarize the evidence regarding the association between alcohol intake and ONFH based on results from case-control studies.

Methods: This analysis included five case-control studies reporting data from 1,251 individuals. With respect to alcohol intake habits (never, former, or current), average drinking consumption (g/week) and cumulative drinking consumption (drink-years) were extracted. The risk of ONFH was evaluated and a two-stage dose-response meta-analysis was performed using restricted cubic splines with four knots at fixed percentiles of 5%, 35%, 65%, and 95% of the distribution.

Results: Former alcohol intake increased the risk of ONFH with marginal significance (odds ratio [OR], 2.62; p=0.055). Current alcohol intake was associated with an increased risk of ONFH on occasional (OR, 3.63; p<0.001) and regular drinking (OR, 5.90; p<0.001). The dose-response meta-analysis revealed that the risk of ONFH increased by 35.3% for every 100 g/week (95% confidence interval [CI], 1.24-1.47; p<0.001) and by 44.1% for every 500 g drink-years (95% CI, 1.295-1.601; p<0.001).

Conclusions: Current and cumulative alcohol intakes were positively associated with an increased risk of ONFH in a non-linear pattern. However, further studies to elucidate the threshold of alcohol consumption to prevent ONFH in the general population are required.

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Comparative prospective study between interference screws vs. press fit technique in ACL reconstruction in young active adult

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Reconstruction of the ACL using hamstring tendons has recently attained increasing interest. The fixation using endobuttons is widest spread. Disadvantages of this fixation away from the point of insertion are enlargement of the tunnel, creeping near the tendon-tape-transition with a giving in of the tendon construct and a permanent elongation. This is also known as Bungee effect. Fixations close to the insertion are therefore being technically applied successfully, e.g. Fixation using interference screws and suspension of loops using transverse rods (Transfix). The disadvantages of these techniques include: 1. They are expensive, 2. There are problems with revisions and 3. They are complicated and time consuming. As an alternative solution, a technique has been developed that should have 3 paramount properties like fixation close to point of insertion, avoidance of implants and simple preparation of the graft. This called press fit technique. This study compared the two technique of hamstring auto graft fixation with the use of a press-fit bone plug vs. interference screws.

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