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**Systematic review on the effect of** **auricular acupoint pressing for relieving postoperative pain after total hip replacement**

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**Abstract**

**Background** Total Hip Replacement (THR) is one of the common methods of treatment of Hip joint disease clinically, such as in the treatment of femoral head necrosis, ankylosing spondylitis, and femoral neck fracture. However, due to the large exposure range of hip arthroplasty, postoperative pain is usually companied after operation. "Auricular application pressure" is a kind of traditional Chinese medicine therapy, which could calm nerves and adjust the body balance function through the conduction of main and collateral channels. There are many articles on auricular application of postoperative pain for relieving pressure hip replacement, but its curative effect still exists uncertainty. Therefore, this review systematically assessed the efficacy of auricular application pressure for relieving hip replacement.

**Objective**: to evaluate the effect of auricular acupoint pressing on postoperative pain after total hip replacement.

**Methods**: Randomized controlled trials (RCTs) that compared auricular acupoint pressing and the routine nursing for relieving postoperative pain after total hip replacement were searched and selected from databases including China Biology Medicine (CBM), China National Knowledge Infrastructure (CNKI), Wanfang Data, VIP database PubMed. We used the bias risk assessment tools of Cochrane Handbook 5.1 to evaluate literature quality and risk of bias. And RevMan 5.3 was used for data analysis and and quality of the evidence was evaluated using the GRADE system.

**Results:** A total of 7 randomized controlled trials were included, including 245 cases of auricular acupoint pressing group and 245 routine treatment groups. Compared with conventional treatment, auricular acupoint pressing could reduce the pain score of 24h and 12h after operation, and relieved postoperative pain after hip arthroplasty (Postoperative 24h: MD=-0.84, 95%CI[-1.27, -0.41]; Postoperative 12h: MD= -1.00, 95%CI [-1.57, -0.44]), and the incidence of adverse reactions was also lower than the conventional care group (RR=0.29, 95%CI [0.12, 0.74]). The results of subgroup analysis showed that the preoperative intervention was better than the intervention after the operation.

**Conclusion**:This study showed that the routine nursing could lower the postoperative pain score of patients with total hip replacement, effectively relieve postoperative pain and reduce adverse reactions. However, due to the small sample size and low quality of evidence, more high-quality clinical randomized controlled trials is needed.

**Key words：**Auricular acupoint pressing; Total hip replacement; Pain; Systematic review ; *Meta*-analysis