SCIENTIFIC PAPER

Preoperative Haemoglobin Level as a Predictor for Blood Transfusion in Elective Total Joint Replacement

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ABSTRACT

Objective: Blood transfusion in joint replacement surgery is common but not without risks. This study aimed to review the prevalence of blood transfusion in total joint replacement and to identify any predictive indicators for transfusion.

Patients and Methods: From January to June 2001, twenty two patients undergoing total hip replacement and 53 patients undergoing total knee replacement were recruited into this prospective study. The pre- and post-operative haemoglobin level and the amount of intra- and postoperative blood losses were recorded. Transfusion criteria were standardised.

Results: The rate of blood transfusion for total hip replacement (59%) was significantly higher than that for total knee replacement (15%). The mean preoperative haemoglobin was 127 g/L and mean drop was 35 g/L. The pre-operative haemoglobin level was significantly different between the transfused and non-transfused groups and was found to be an important predictor for postoperative blood transfusion.

Conclusion: It is essential to consider alternatives for transfusion if the preoperative haemoglobin is less than 123 g/L.

Key Words: Blood transfusion, Haemoglobin, Joint replacement, Predictor

中文摘要

用全關節置換術前血色素水平作為是否輸血的前瞻考慮因素

王文鋒，李安邦，高拔萃，梁文輝，林國基，鄭瑩璋

在全關節置換術中，輸血是非常普遍，但它亦有風險。本研究對22宗全髕及53宗全膝關節置換術進行檢討，發現全髕關節術後輸血個案比全膝關節為多，術前術血色素水平為127 g/L，而平均下降為35 g/L，術前血色素水平證明是一重要前瞻考慮因素來決定是否輸血。如術前血色素水平少於123 g/L，輸血比率明顯上升，故必須考慮其他方案來減少失血。