Re: Osteochondral transplantation for the treatment of osteochondral defects at the talus with the Diamond twin system® and graft harvesting from the posterior femoral condyles

Yueju Liu · Yingze Zhang

Received: 28 April 2014 / Published online: 3 June 2014
© Springer-Verlag Berlin Heidelberg 2014

Dear editor,

We read with interest the study of osteochondral transplantation for the treatment of osteochondral defects at the talus [1] and wish to congratulate the authors on work which adds to our knowledge and understanding of the difficult clinical problem of osteochondral defects. However, we have some concerns regarding the paper and wish to share them.

In the procedure of osteochondral transplantation at the talus, the author said that “The donor cylinders were pressed manually into the recipient talar site to fill the defect”. Then the author said “The patients were mobilized with partial weight-bearing for 6 weeks and with early physiotherapy to both the ankle and the knee. Unprotected weight-bearing was allowed after a radiological control. CPM for the ankle was used for the first 6 weeks” in rehabilitation protocol. However, it is so difficult to understand the rehabilitation protocol, which was not clearly expressed. In our experience, the ankle is fixed with a plaster 3 weeks post-operatively, which can not do any exercise to protect the just transplanted cartilage. But in this article the patients were mobilized earlier as above mentioned with partial weight-bearing for 6 weeks and so on as above mentioned, what the

exactly meaning of partial weight-bearing? Do they have any influence for the transplanted cartilage?

The next question is that the author used biodegradable β -tricalcium phosphate ceramic to fill the donor defect in the posterior femoral condyles. Although β -tricalcium phosphate is one of the most mature orthopedic biomaterials used for promoting osteogenesis, there are still controversies on its degradation [2]. At least it can not be completely degraded to the current view [2, 3]. So the partially degraded β -tricalcium phosphate is likely to fall off into the knee joint cavity, become the joint foreign body in the future long-term follow-up. The mean time of follow-up was only 17 months, which was not long enough to observe these complications. However, there have been reports about adverse reactions of artificial bone graft substitutes, lessons learned from using tricalcium phosphate [3].

Conflict of interest The authors confirm that there are no known conflicts of interest associated with this publication and that there has been no significant financial support for this work that could have influenced its outcome.

References

1. Petersen W, Taheri P, Schliemann B, Achtnich A, Winter C, Forkel P (2014) Osteochondral transplantation for the treatment of osteochondral defects at the talus with the Diamond twin system® and graft harvesting from the posterior femoral condyles. Arch Orthop Trauma Surg 134(6):843–852 (Epub ahead of print)
2. Tansavatdi K, Mangat DS (2011) Calcium hydroxyapatite fillers. Facial Plast Surg 27:510–516
3. Friesenbichler J, Maurer-Ertl W, Sadoghi P, Pirker-Fruehauf U, Bodo K, Leithner A (2014) Adverse reactions of artificial bone graft substitutes: lessons learned from using tricalcium phosphate geneX®. Clin Orthop Relat Res 472:976–982

Y. Liu · Y. Zhang (✉)
Department of Orthopedic Center, Third Hospital
of Hebei Medical University, No. 139 Zi Qiang Road,
Shijiazhuang 050051, Hebei, People's Republic of China
e-mail: yzlingliu@126.com

Y. Liu
e-mail: liuyueju1983@gmail.com

Y. Liu · Y. Zhang
Key Orthopaedic Biomechanics Laboratory of Hebei Province,
Shijiazhuang, People's Republic of China