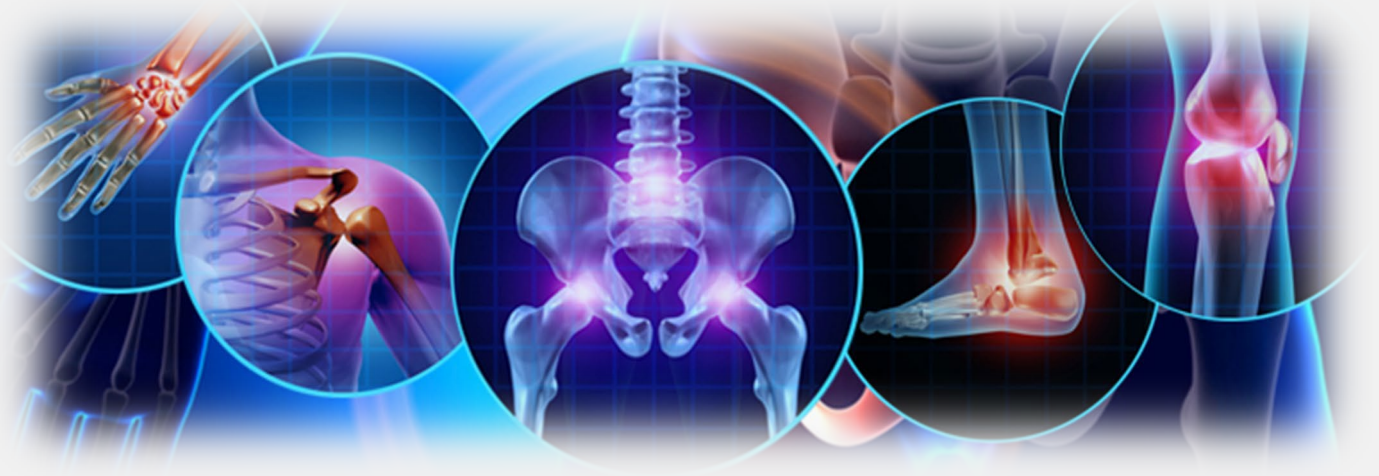


ORTHO NEWSCAST



Issue 2|2020

Dear Doctor,
Greetings from Micro Labs. We are happy to bring you "**Ortho Newscast**" which contains latest and interesting news in the field of Orthopaedics.

This issue contains

- **Mid- to long-term results of modified non-vascularized allogeneic fibula grafting for early femoral head necrosis**
- **Genetic Risk Score Predicts Site-Specific Fractures**

Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in

Looking forward to your valuable feedback

Best Regards,
Medical Team,
Micro Labs Limited



Mid- to long-term results of modified non-vascularized allogeneic fibula grafting for early femoral head necrosis

Background

The aim of this study was to determine mid-and-long term follow-up results of patients with early femoral head osteonecrosis(ONFH) who were treated by modified free vascularized fibular grafting combined with core decompression and bone grafting.

Methods

Forty-four patients at early ONFH were included in this study. Visual analog scale (VAS) pain scores, range of hip motion (ROM), and Harris hip score (HHS) were recorded to assess the clinical outcome; Western Ontario McMaster Osteoarthritis index (WOMAC) scores and Short Form 36 health survey (SF-36) were conducted to measure the living quality; X-ray film or magnetic resonance imaging (MRI) was



used to evaluate radiographic progression; survivorship was defined as patients did not undergo the total hip arthroplasty (THA) or fusion at the last follow-up. Median follow-up was 7.4 years (6–8.2 years).

Results

The mean VAS score, ROM, and HHS were significantly improved at the final follow-up compared with preoperative values ($p < 0.001$). Health assessment including WOMAC scores and SF-36 were also better than those preoperatively ($p < 0.001$).

Conclusion

Modified non-vascularized allogeneic fibula Grafting combined with core decompression and bone grafting could improve the clinical outcomes and enhance the quality of life for patients with early ONFH.

References

Changjun, C., Donghai, L., Xin, Z. et al. Mid- to long-term results of modified non-vascularized allogeneic fibula grafting combined with core decompression and bone grafting for early femoral head necrosis. J Orthop Surg Res.2020; 15:116.



IN THE NEWS

Genetic Risk Score Predicts Site-Specific Fractures

Osteoporosis diagnosis and fracture-risk prediction are based on the combination of imaging (usually DXA) and clinical risk factors. Current fracture-risk prediction tools do not include information on trabecular or cortical bone microstructure and do not distinguish between differences in prediction of bone site-specific fractures.

In a study ultrasound-based genetic risk score eBMD-GRS showed modest correlation with the DXA-based genetic risk scores for the femoral neck (FN-BMD-GRS) and lumbar spine (LS-BMD-GRS). These scores had a significant inverse association with estimated BMD, femoral neck BMD and lumbar spine BMD.

eBMD-GRS independently predicted wrist and vertebral fractures, while both the eBMD-GRS and the FN-BMD-GRS contributed to hip fracture prediction.



Genetic testing for low BMD may be part of standard of care in the future. eBMD-GRS is directly relevant to diagnosing osteoporosis and is also effective at predicting fracture via its effect on BMD.

References

Nethander M, Pettersson-Kymmer U, Vandenput L, et al. BMD-Related Genetic Risk Scores Predict Site-Specific Fractures as Well as Trabecular and Cortical Bone Microstructure. J Clin Endocrinol Metab. 2020;105(4)



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