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LIFT, DRILL, FILL AND FIX (LDFF): A NOVEL ARTHROSCOPIC TECHNIQUE IN TALAR OSTEOCHONDRAL DEFECTS

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An Osteo-Chondral Defect (OCD) of the talus is a lesion of the talar cartilage and subchondral bone. Several descriptive terms exist for this type of lesion, including osteochondritis dissecans, osteochondral fracture, transchondral fracture, osteochondral lesion and flake fracture.
It is mostly caused by a (single or multiple) traumatic event, leading to partial or complete detachment of the fragment.
An OCD can either heal and remain asymptomatic or progress to deep ankle pain on weightbearing.
The deep ankle pain is most probably caused by high fluid pressure during activity, resulting in stimulation of the subchondral bone nerves underneath the cartilage defect. Other possible symptoms are: limited range of motion, stiffness, locking and swelling.
Treatment strategies for primary OCD of the ankle have substantially increased over the last decade. Conservative treatment is the first step in the treatment of symptomatic OCD and may consist of Non-Steroidal Anti-Inflammatory Drugs (NSAID), restriction of (sporting) activities, rest and/or cast immobilization.
Currently, arthroscopic debridement and bone marrow stimulation is considered the primary treatment in symptomatic lesions up to 1.5 cm in diameter. With this technique all unstable cartilage, including the underlying necrotic bone, is removed and small holes are drilled or punctured in the subchondral bone to promote revascularization. Consequentially, bone marrow cells migrate to the defect and new fibrous cartilage is formed.
Internal fixation of an osteochondral talar defect is a good alternative technique. The advantage of this treatment option is to restore the natural congruency of the subchondral bone, and to preserve hyaline cartilage.
The Lift, Drill, Fill and Fix (LDFF) is a new arthroscopic technique for osteochondral talar defect, and appears to be a promising arthroscopic treatment option for primary talar osteochondral defects (1).

References

1.Kerkhoffs GM, Reilingh ML, Gerards RM, de Leeuw PA. Lift, drill, fill and fix (LDFF): a new arthroscopic treatment for talar osteochondral defects. Knee Surg Sports Traumatol Arthrosc 2014 May 20 [Epub ahead of print]