

## English summary

AVN is the final result of a number of different pathways leading to bone death and ultimately to joint destruction . the femoral head is the most common site of ON .

The most common risk factors for ON are glucocorticoid use , excessive alcohol consumption , and cigarette smoking .The disease usually occurs in the fourth decade of life , but the age range of patients is wide . The first symptom associated with the disease is typically a deep , throbbing groin pain . this pain is usually intermittent and of gradual onset .

There are many classification systems for grading ONFH based on degree of changes in the femoral head in MRI. MRI is the most useful method for diagnosis of ONFH especially in early stages .

A variety of non-operative treatment interventions are available including vasodilators, lipid-lowering agents, various types of anticoagulants, bisphosphonates, hyperbaric oxygen therapy , and extracorporeal shock wave therapy .

There are currently four general categories of operative treatment options aimed toward preserving the femoral head and delaying (or preventing) total arthroplasty : (1) core decompression : (2) osteotomy : (3) nonvascularized bone grafting and : (4) vascularized bone grafting

FVFG is an attractive treatment option in that it combines the benefit of decompressing the femoral head with the benefit of introducing an osteoconductive and osteoinductive graft into the devitalized head .

FVFG is indicated in the younger, active patient with symptomatic precollapse ONFH, near normal hip motion . Despite the complexity of the procedure , the complication rate is very low if the surgical and postoperative protocols are adhered .