



Technology Opportunity, Ref. No. UZ-12/789

Miniinvasive Tool for preventing fracture due to osteoporosis

The prevention of fractures due to osteoporosis is an unmet medical need. A surgical tool is provided that helps preventing such fractures by reinforcing the bone. With the tool, bone cement is injected into the spongiosa in a miniinvasive way, which results in very low blood loss and a short time of surgical intervention..

Keywords Osteoporotic fractures, Prevention, Miniinvasive

Inventors Dr. med. Bernhard Ciritsis, University Hospital Zurich

Reference in preparation

Background Osteoporotic fractures, especially in the femoral neck area are a challenging surgical problem that will become even more important in the next future because of the growing percentage of elderly people in the western societies. Already in 1990 there were more than 1,7 Million cases of femoral neck fractures worldwide. The life time incident rate is more than 10%. A study recently published by the WHO shows that the fracture of the femoral neck is one of the ten most severe pathologies worldwide, causing death in up to 25% of the patients in one year after the fracture. More than 50% of the patients will be chronically invalid after a fracture of the femoral neck and 25% need continuously nursing. A promising method to prevent such fractures is to reinforce the bone with a composite bone cement, which has been proven to strengthen the bone and prevent it from breaking. However, no surgical tools exist to realize such a reinforcement in a miniinvasive way.



Invented surgical tool

Invention A surgical tool is provided that helps preventing fractures due to osteoporosis by reinforcing the bone. With this tool, bone cement is injected into the spongiosa in a miniinvasive way, which results in very low blood loss and a short time of surgical intervention.

Patent Status Patent application filed (PCT/EP2013/051206)

Contact *Unitectra, Technology Transfer of University Zurich, Wolfgang Henggeler
Scheuchzerstr. 21, CH-8006 Zürich, +41 44 634 44 01, mail@unitectra.ch*