Technology Offer

Casting mould for temporary spacer used in revision surgery

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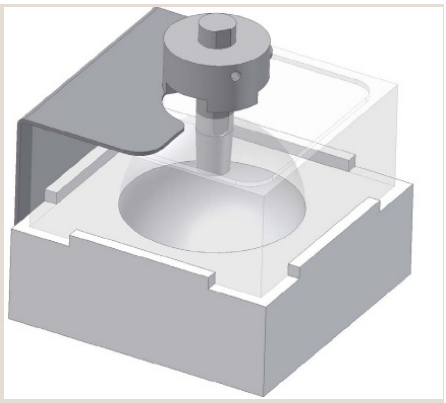
ascenion

A Company of the Life-Science Foundation for the Promotion of Science and Research

Challenge

Although hip replacement surgery has become a routine procedure, durability of the implants is still a major issue: In many cases implants need to be replaced after a few years due to osteolysis and/or infection. Often only the ball and socket parts of the implant are removed during surgery, and are temporarily replaced by a spacer hand-made from bone cement mixed with antibiotics, while the stem of the implant remains *in situ*. The commercially available pre-formed spacers replacing the ball part of the implant cannot not connected to the stem, and therefore the joint cannot be articulated, which may result in shortening of the muscles and other complications. Moulding systems for generating customized temporary implants are also on the market, but these only allow to produce a complete implant consisting of ball and stem as a single piece rather than two separate pieces that can be connected.



Casting mould

Technology

In order produce a temporary implant that can be attached to an implant shaft a new type of casting mould was constructed that allows to insert a Teflon conus shaper into the mould after casting the cement in order to generate a hole by means of which the spacer can later on be fitted onto the stem. The penetration depth of the conus can be steplessly adjusted with a screw, thus allowing to exactly adjust the fit of the spacer.

Commercial Opportunity

In-licensing is possible.

Developmental Status

A prototype is available and will be tested in clinical routine after ethics committee approval.

Patent Situation

An application for utility model status has been filed in 2009.

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