



2010 Annual Meeting Poster Presentations

Clinical Follow-up and Metal Ions in Blood of Patients with Hip Resurfacing

Poster Presentation Number: P037

Location: Morial Convention Center

Adult Reconstruction Hip

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Larger head and cup diameters decreased the level of metal ions in blood of patients with hip resurfacing whereas the acetabular inclination and the neck-shaft angle had no effect.

Metal-on-metal bearings composed of cobalt, chromium and molybdenum alloys are subject to corrosion and wear with subsequent local and systemic ion release. A number of causes have been associated to an increase in metal ions following hip arthroplasty with metal-on-metal implants. However, little is known regarding the effect of different surgical variables on the concentration of metal ions in the blood of patients with resurfacings.

A total of 90 patients with complete radiographic and metal ion data were prospectively followed for a minimum of 2 years after unilateral surface arthroplasty. Operative and radiographic variables were analyzed to determine their effect on the concentration of metal ions in the whole blood of patients after hip resurfacing. Functional outcome was measured using the Harris hip score (HHS) and the University of California Los Angeles (UCLA) Activity Score.

A larger head diameter and a larger cup diameter resulted in significantly lower cobalt and chromium ion levels. However, the acetabular inclination and stem-shaft angle had no effect on the concentration of metal ions. Both the HHS and UCLA Activity Score improved significantly compared to pre-operative values.

A larger femoral head and acetabular cup diameter resulted in a decreased level of metal ions in whole blood of patients with hip resurfacing.

A * to the left of the title indicates the FDA has not cleared the drug or device for the described purpose.

Tuesday	1:00 PM - 6:00 PM
Wednesday - Friday	7:00 AM - 6:00 PM
Saturday	7:00 AM - 5:30 PM

Poster presentations are designed to provide registrants with an in-depth learning experience. New investigations, methods and innovative research are featured in the Poster Exhibits.

The presenter will be available at the exhibit from 11:30 AM to 12:30 PM Wednesday through Friday for discussion.

An alphabetical listing of disclosures will be available at a later time.

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