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Original Article

DIFFICULT REVISION OF ACETABULAR COMPONENT MIGRATED IN PELVIS IN THA, WITH OR WITHOUT VASCULAR INVOLVEMENT

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Abstract

AIM has a high rate of mortality is showed by the review of literature, in those cases. We want to establish a protocol according to our experience.

Material and methods: Between 01.2006 and 01. 2012 we have performed 8 such total hip revisions with acetabular migrated cup, in 4 cases a vascular graft was needed. Two cases were revised after a spacer for septic revision. The protocol included: planed X Ray frontal and lateral view, angio-CT, biological evaluation, a correct preoperative planning, a minimal 6 units of blood stock, an experienced anesthesiologist, an experienced surgical team which included a vascular surgeon, a versatile arsenal of revision prosthesis, bone grafts and vascular grafts. The approach used: a general antero-lateral approach we usually use for hip revisions and in cases with vascular risk involvement, a retroperitoneal approach, in dorsal decubitus.

Results: The acetabular defect was reconstructed using bone grafts tantal revision cups in 4 cases, Burch-Scheneider cages in 2 cases, Kerboull ring in 1 case and oblong cup (Cotyle Espace) in other one. In 4 cases an iliac vessel graft was needed and the procedure was carried out by the vascular surgeon. All patients survived the procedure of revision and still come for follow-up, no septic complications.

Conclusions: Intrapelvic acetabular cup migration is a rare but serious complication that can occur after total hip arthroplasty, in septic or aseptic cases. An experienced

multidisciplinary team of surgeons should take part in planning and conducting such a complicated revision.

Key words: *Intrapelvic acetabular cup migration, revision prosthesis, iliac vessel, protocol, multidisciplinary team of surgeons.*

Rezumat

AIM (*migrația acetabulară intrapelvină*) are o rată de mortalitate redusă în literatură. În acest studiu, am prezentat experiența noastră în aceste cazuri.

Material şi metodă. Între 01. 2006 şi 01.2012, am practicat 8 asemenea revizii totale cu migrare acetabulară, în 4 cazuri a fost necesară grefă vasculară. Două cazuri au fost operate după revizie septică. Protocolul include examenul radiologic standard cu vedere frontală şi laterală, angioCT, evaluare biologică, corectare preoperatorie a deficiențelor hematologice cu minim 6 unități de sânge, un anestezist experimentat, o echipă chirurgicală cu chirurg vascular, un arsenal de proteze pentru revizie, grefoane osoase şi vasculare. Calea de abord este de obicei antero-laterală la cazurile cu risc vascular sau retroperitoneală, in decubit dorsal.

Rezultate. Defectul acetabular a fost reconstruit cu grefon osos în 4 cazuri şi cu grefon vascular iliac în alte 4 cazuri. Toți pacienții au supraviețuit, fără complicații septice.

Concluzii. Migrarea acetabulară intrapelvină este o complicație rară, dar dificilă, ce poate surveni după artroplastia totală, in cazuri septice sau aseptice şi necesită tratament chirurgical interdisciplinar.

Cuvinte-cheie: *migrație intrapelvică acetabulară, revizie protetică, vase iliace, protocol chirurgical interdisciplinar.*

Introduction

Intrapelvic acetabular cup migration is a rare but serious complication that can occur after total hip arthroplasty, in septic or aseptic cases. The severe protrusion of the acetabular component of a total hip arthroplasty is migration of the cement and cup medial to the iliopectineal line of the pelvic bone which entails a defect of the pelvic medial wall that is the floor of the acetabulum.

Removal of an acetabular prosthesis that has migrated into the pelvis can be hazardous4. That acetabular component migrated into the pelvis, create a fibrous adherent to the pelvic organ (uterus, rectum, bladder, ureter) but also to the common iliac vessels. That removal can lead to uncontrollable bleeding (Slater, Edge, Salman 12) death or severe complications created by damage to the pelvic organs (Robert, Loudon 9).

Extraction of an acetabular prosthesis that has migrated into the pelvis must be done with complete control of careful liberation of theses fibrous adherent to the pelvic organ. The surgery can be performed with 2 separate approach, to observe by the window what happened by other approach. Initially, a