

Treatment of acetabular bone loss with associated pelvic discontinuity in revision total hip arthroplasty: Acetabular distraction technique

Neil Sheth

University of Pennsylvania, USA

Email- neil.sheth@uphs.upenn.edu

Abstract

Introduction: As the number of primary total hip arthroplasty (THA) procedures performed continues to rise, the burden of revision THA procedures is also expected to increase. With patients undergoing THA at younger ages and living longer, revision patients are presenting with greater bone loss at the time of revision surgery. The proper evaluation and treatment of acetabular bone loss at the time of revision surgery is complex and is further complicated in the face of a chronic pelvic discontinuity. Identifying proper pre-operative patient assessment in conjunction with detailed pre-operative planning is essential for obtaining favorable clinical results. Appropriate radiographs are critical in assessing acetabular bone loss, and specific classification schemes can identify bone loss patterns and guide available treatment options. The presentation reviews the surgical decision making and clinical results of different surgical options for the treatment of acetabular bone loss, and introduces a novel technique for the treatment of a chronic pelvic discontinuity.

Background: Pelvic intermittence happens frequently in patients of female sex, with a background marked by earlier pelvic radiation or rheumatoid arthritis. The two most normal order frameworks are the AAOS Classification System and the Paprosky Classification, with the Paprosky Classification giving treatment proposals dependent on the degree and area of bone misfortune, accordingly considering pre-usable planning. also, follow-up examines have shown sufficient legitimacy and dependability of this grouping framework. There are three significant elements concerning accomplishing an effective result while rewarding pelvic intermittence: the measure of bone stock staying, biologic in-development potential, and the recuperating capability of the discontinuity. Treatment choices incorporate pen recreation with mass acetabular allograft, custom triflange acetabular segment (CTAC), a cup-confine build, enormous acetabular cup with permeable metal expands, or acetabular interruption with a permeable tantalum shell with or without secluded permeable increases. This audit article talks about grouping, assessment, recreation choices and results of incessant pelvic brokenness.

Method:- Positive clinical results depend on cautious assessment and pre-usable arranging. Patients frequently

present clinically with torment, trouble with ambulation and leg-length error because of relocation of the cup and hip focus. A point by point history ought to be recorded seeing the list technique just as pre-and post-employable indications. A full arrangement of radiographs ought to be gotten including an anteroposterior (AP) pelvis, AP and horizontal of the hip, and a cross-table parallel of the hip. Now and again, a processed tomography (CT) can be an amazing aide to survey the degree and area of bone misfortune, as it is much of the time thought little of on plain radiographs.¹³ In cases with serious average relocation, CT angiography ought to be acquired to comprehend the relationship of intra-pelvic neurovascular structures to the acetabular segment. Pre-usable research center assessment including white platelet tally, erythrocyte sedimentation rate, and C-receptive protein ought to be gotten before all correction THAs. Raised markers should provoke a pre-usable hip yearning.

Results: Acetabular bone misfortune and constant pelvic brokenness in correction THA is a difficult and progressively visit issue. Suitable pre-employable workup and adjustment procedures are expected to get long haul cementless obsession and develop security. The Paprosky characterization framework ought to be utilized all together the assistance direct the fitting treatment intercession. Numerous treatment choices are accessible and show acceptable results. Our treatment of decision for ceaseless pelvic intermittence is acetabular interruption strategy with or without the utilization of permeable metal secluded enlarges. Information in regards to treatment results of interruption are restricted, however early results are promising, and this is the creator's favored treatment for interminable pelvic intermittence.

Biography: Neil Sheth is an Assistant Professor of Orthopaedic Surgery at University of Pennsylvania. He is also the Pennsylvania Hospital Site Director for the adult reconstruction hip and knee fellowship. He obtained his Under-graduate degree in Biomedical Engineering with a minor in Finance at University of Pennsylvania. He then spent two years on Wall Street as a Financial Analyst at Solomon Smith Barney's Healthcare Investment banking division prior to attending medical school at Albany Medical College. Following medical school, he completed six year Orthopaedic Surgery Residency at Hospital of the University of Pennsylvania. Following residency, he completed an adult hip and knee reconstruction fellowship at Rush University as well as a three-month mini-fellowship

Extended Abstract

at the Endo Klinik in Hamburg, Germany focusing on peri-prosthetic infection. He is currently leading a team to build an orthopedic center of excellence in Moshi, Tanzania.

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