3 - Clinical Anatomy

OC-082 - (23810) - THE CORONA MORTIS PREVALENCE AND CLINICAL SIGNIFICANCE USING THE MODIFIED STOPPA APPROACH

N. Mogale (South Africa)[1]; J. Naicker (South Africa)[1]; A. Masenge (South Africa)[2]; O. Modisane (South Africa)[1]; S. Matshidza (South Africa)[3]; Z. Tshabalala (South Africa)[4]

1 - Department of Anatomy, Faculty of Health Sciences, School of Medicine, University of Pretoria; 2 - Department of Statistics, Faculty of Natural and Agricultural Sciences, University of Pretoria; 3 - Department of Orthopaedics, Faculty of Health Sciences, School of Medicine, University of the Free State; 4 - Department of Human Biology and Integrated Pathology, Medical School, Faculty of Health Science, Nelson Mandela University

Nkhensani Mogale
Pretoria

Jade Naicker
Pretoria

Andries Masenge
Pretoria

Obakeng Modisane
Pretoria

Steven Matshidza
Bloemfontein

Zithulele Tshabalala
Pretoria

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The Modified Stoppa approach is vital during the repair of pelvic ring and acetabular fractures. This approach, although less invasive, has associated iatrogenic risks. Previous studies have highlighted the adverse effects resulting from the inadvertent severing of the corona mortis (CM) vessels, resulting in bleeding, prolonged recovery and death.

This study investigated the incidence and variations of the CM in a South African sample using 63 adult cadavers from the Department of Anatomy, University of Pretoria and 73 patients computed tomography (CT) angiograms from the Department of Diagnostic Radiology, Universitas Hospital. The cadaver study involved dissection of the pelvic blood supply followed by documentation of the incidence and distances of the CM in relation to various bony landmarks. The angiogram study consisted of precise observation of pelvic CT scans at the superior pubic ramus in order to record the incidence and distances of the CM to the various bony landmarks. The distances allowed for mapping of 'safe zones' which were validated through cadaveric simulations of the Modified Stoppa approach on two adult cadavers.

The incidence of the CM was observed as 67.5% and 33.1% on the cadaveric and angiogram sample, respectively. The CM safe zones in relation to the pubic tubercle resulted in 60.3mm and 49.1mm for the cadaveric and angiogram study, respectively.

Discrepancies between the anatomical and clinical study were evident in the results. Therefore, it is recommended that angiogram study of the CM should be limited to diagnostic purposes when confirming the presence of the CM.

Palavras-chave : Corona mortis, Modified Stoppa approach, Pelvic ring fractures