

Material of research: 27 preparations of female pelvic arteries in two age groups: newborns and aged 50-65 years.

Results of research: correlation coefficients of a. uterina parameters¹ are presented in

Parameters of correlation	Length of a. uterina	Diameter of a. uterina	Variant of beginning
Level of bifurcation of f. iliaca communis	-0,47**	0,03	0,23
Diameter of a. iliaca communis	0,46**	0,10	-0,03
Diameter of anterior trunk of a. iliaca interna	0,80	-0,80	-0,77
Length of anterior trunk of a. iliaca interna	0,60	-1,00***	-0,26
Diameter of a. sacralis lateralis	-0,10	0,03	0,54**
Length of a. glutea superior	0,16	0,27	0,45*
Length of a. vesicalis superior	0,45*	0,44*	0,02
Length of a. vesicalis inferior	0,18	0,49**	0,16
Length of a. glutea inferior	0,73***	0,06	0,19
Length of a. pudenda interna	0,66**	0,09	0,06
Presence of "corona mortis"	0,19	0,38	-0,25

Note: 1- factor Spearman R was used: *- $p < 0,05$, **- $p < 0,01$, ***- $p < 0,001$

Conclusion: Thus, analyzing the received results, it is possible to draw a conclusion on presence of correlation of a. uterina parameters with parameters of some vessels of the pelvis. So, having established the diameter and a level of common iliac artery bifurcation, length of the anterior trunk of internal iliac artery, superior and inferior vesical arteries, inferior gluteal and internal pudendal arteries it is possible to indirectly know parameters of a. uterine.

ANATOMICAL FEATURES OF BRANCHES OF THE FEMORAL ARTERY

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The basis branch of femoral artery is the deep artery of the hip. Numerous researches have shown a significant variation of origin and branching of the given vessel.

In literature, variation of topographical relations between the origin of deep artery of the hip and inguinal ligament is described. Most often the artery originates 5-6 cm below inguinal ligament, rarely- just under it, and the rarest variant- at the level of inguinal ligament. Many authors describe lower origin of the artery- 10-11 cm from inguinal ligament.

Also, it is known as origin of the deep artery of the hip from medical semicircle of the femoral artery and external iliac artery above inguinal ligament. At the beginning of the a. profunda femoris from postero- external edge of the femoral artery, it goes downwards and laterally. If the vessel originates from the back semicircle, it goes along the posterior wall, then passes under its external edge and goes laterally. If the artery arises from posterial- internal edges of the femoral artery it passes between femoral artery and vein.

Many variants of origin of branches of the deep artery of hip are described in literature. One or both circumflex arteries depart directly from the femoral artery. In such cases only perforating arteries whose

quantity can vary, originate from deep artery of hip. If the deep artery is absent, all branches inherent in it depart from the femoral artery. A. circumflexa femoris lateralis more often departs from 1,5-2 cm below the beginning of deep artery of hip.

When a. circumflexa femoris lateralis divides on ascending and descending branches, the latter also can be accepted as additional deep artery of the hip. A. circumflexa femoris medialis more often originates 1-1,5 cm from deep artery of hip beginning. Adachi (1928) describes the variant at which the a. circumflexa femoris medialis originates from the femoral artery on 16 cm below the inguinal ligament.

So, it is visible that there is sharp problem of variability of arteries of hip. Further research is required on this question.

OSTEOGENIC BONE HEALING APPLICATIONS – A HYPOTHESIS INVESTIGATION, USING GENETIC AND MOLECULAR FACTORS IN OSTEOPE-TROSIS, PROSTATE CANCER AND OSTEOGENIC SARCOMA

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Introduction: In the present publication, I propose an idea of further investigation of a hypothesis, literally using notorious pathological diseases, one of which is the second most common cancer killer in men (prostate cancer), and use them for healing. As an infamous bovine agent it was once used by Edward Jenner to eliminate the dark killer smallpox in Europe. My hypothesis will use osteogenic neoplasms as bone healing stimulator and the genetic disease osteopetrosis that, by means of gene isolation, will alter the rate of bone healing and remodeling, hopefully making them faster and more efficient.

The investigation that was made in this publication, tries to find the common physiologic denominator between bone healing, wound healing, bone remodeling and their molecular factors which theoretically can be influenced by the pathologic processes mentioned above. The main goal of this paper is to suggest further future research and experiments that may prove the mentioned theory by medicine based evidence.

Methods: Theoretical review of literature articles, publications, books related to this issue can influence knowledge on bone healing acceleration and positive bone balance. The hypothesis is based on meta-analysis of published works of M.Urist, A.Reddi, T.Sampath and other researchers, who contributed to Bone Morphogenic Proteins research. Other molecular factors were also taken into notice (e.g. Transforming Growth Beta Factor etc.). Using the collected data, I propose a basic experiment for further research.

Results: A basic experiment was proposed that may show further results. Basically multiple fracture animal model sketched to be used, in which isolated molecular factors will be injected, and the results will be recorded.

Conclusion: Normal bone metabolism and physiologic processes are surprisingly still fully undiscovered and unknown. The practical implication of various neoplastic processes needs further laboratory and clinical assessment. In osteopetrosis, osteosarcoma, prostate cancer, wound/bone healing mechanisms, the Bone Morphogenic Proteins growth factor, Transforming Growth Factor-beta and other bone remodeling homeostasis molecular factors play pivotal pathogenetic role.

Key words: osteopetrosis, prostate cancer, osteogenic sarcoma, M.Urist, bone morphogenic proteins, transforming growth beta factor.