

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.