

**Keywords:** bladder cancer, BCG, NMIBC, therapy

## **179. THE TREATMENT OF THE DIAPHYSEAL BONES DEFECTS USING THE METHOD OF INDUCED MEMBRANE (PRELIMINARY STUDY)**

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**Introduction:** The management of segmental long-bone defects is a challenge. The literature has described many techniques, but each is fraught with specific difficulties. Masquelet's technique of induced membrane is now a reference surgical procedure for the treatment of complex lesions requiring bone regeneration. The concept of induced membrane was introduced by Alain-Charles Masquelet in 1986. The Masquelet method consists in formation of an induced membrane by a foreign body which has secretory properties, influencing positive on the regeneration and strengthening of the cancellous bone grafts. Aim: to investigate the morphological properties and characteristics of induced membrane which was modeled in an experimental group of rabbits in order to assess and to optimize the effectiveness of the Masquelet method in the clinic.

**Materials and methods:** Experimental work was done using a group of rabbits (n=10) with the weight  $5,5\pm 0,5$ kg and the age 5 months. The investigation had 3 steps. The first step of the study consisted in creating the bone defect, filling it up with an antibiotic-impregnated cement spacer and stabilizing it with a plate. The second step of the study was 21 days later, consisting in incision of the induced membrane, removing the spacer and filling up the space with cancellous bone chips collected from iliac crest. At this stage we sacrificed 5 rabbits in order to perform the histological and morphological examination. At the sixth week we switched to the third step – ablation of metal construction and the radiological control exam. At this stage we sacrificed 5 rabbits to study the morphological aspect of the healed bone.

**Results:** The histo-morphological examination performed at the 21 days demonstrated the presence of an inflammatory process characterized by neutrophilic, eosinophilic elements and regeneration's elements – fibroblasts. Also, it was determined a pseudo synovial metaplasia and a villous hyperplasia with formation of a synovial epithelium on the internal face of the induced membrane. The histo-morphological exam performed at the 6 weeks has demonstrated the continuation of the neoforming process and of the bone modeling, the regeneration process prevailed over the inflammatory one. The morphological aspect was formed by agglomerations of fibroblasts, myoblasts and collagen and numerous vascular buds, that promote a good neoangiogenesis and osteogenesis of the bone.

**Conclusion:** The morphological study demonstrated an intense process of cell proliferation and differentiation, which highlights the biological role of induced membrane by foreign body with secretion of the osteoinductive factors, promoting the vascularization and corticalization of the bone. The

Masquelet method is an effective method that allows getting the consolidation of the bone in case of critical size bone loss.

**Keywords:** Masquelet technique, bone defects, induced membrane technique.

## **180. ADHERENCE TO TYROSINE KINASE INHIBITORS TREATMENT IN PATIENTS WITH CHRONIC MYELOID LEUKEMIA: SINGLE INSTITUTION EXPERIENCE**

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**Introduction:** Treatment adherence is an important element in the management of every chronic disease. For the patients with chronic myeloid leukemia (CML) treated with tyrosine kinase inhibitors (TKI) the remarkable benefits brought by the medication may be significantly undermined by the patient low adherence to treatment.

**Materials and methods:** We conducted a qualitative and observational study, which was performed between October 2015 and December 2015, on patients diagnosed with CML under treatment with TKI at I-st Medical Clinic-Hematology, Clinical Emergency County Hospital Targu Mures, Romania. The sampling of patients was simple-random, consisting of 32 patients with CML-chronic phase, >18 years old, with >12 months of treatment with TKI, median age was 55 years, 67.47% of the patients were males and 62.5% of the patients were treated with imatinib 400 mg/QD. Physician-reported adherence (observed adherence) was evaluated, for the last 3 months, using the Proportion of Days Covered (PDC) method and patient-reported adherence (experienced adherence) using a self-reporting questionnaire with 10 items regarding adherence to treatment; demographic data were collected too. The following statistical analysis was used: descriptive statistic, Fisher Exact test, unpaired t-test.

**Results:** PDC was <0.9 (low adherence) in 3 patients and 0.9-1 in 5 patients (medium adherence); Total lower adherence (low + medium) was 25%, patients being younger ( $p=0,044$ ), but adherence was not correlated with gender, TKI treatment length, urban/rural place of living ( $p>0.05$ ). 46.88% of the patients admit omission of doses, 73.33% of them attributing it to forgetfulness (33.33% rarely forgot, 40% sometimes), the other 26.66% to medication adverse effects or to a sense of feeling sick.

**Conclusion:** PDC estimation of adherence was more optimistic compared to experienced adherence. Due to the unavoidable errors Associated with patient self-report, the rate of non-adherence is probably underestimated. Because the adherence to chronic medication in general and to TKI in particular is multifactorial, further quantitative, multiparameter and multicenter studies are necessary.

**Keywords:** chronic myeloid leukemia, treatment adherence, tyrosine kinase inhibitors.