

Scientific adviser: Gutu Eugen, MD, PhD, Professor, Department of General Surgery and Semiology no.3

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Neuropathy is the most common long-term complication of diabetes, which affects about 50% of patients. The distal symmetric neuropathy that appears in 75% cases of diabetic neuropathy is one of the main risk factors for developing diabetic foot ulcer. Besides this, there are other important risk factors that could influence the development and the evolution of tislular lesion in a diabetic foot.

Aim of the study. Determination of the risk factors and the severity degree of distal neuropathy in patients with diabetic foot ulcers.

Materials and methods. Twenty-three patients with neuropathic form of the diabetic foot that had trophic ulcer were included. A number of potential risk factors like the duration of diabetes mellitus, use of insulin therapy, degree of distal neuropathy, poor glycemic control confirmed by HbA1C level, presence of foot deformities, arterial hypertension, and BMI were evaluated. The degree of distal neuropathy was assessed by clinical neuropathy scores: Neuropathy Symptoms Score (NSS) and Neuropathy Disability Score (NDS).

Results. The duration of diabetes was more than 5 years in all patients, and 19 patients used insulin. In 94.1% cases NSS was 7-9 points and NDS was 8-10 points that denotes severe neuropathic symptoms. A total of 82.3% patients had poor glycemic control with a level of HbA1C > 8%. 70.5% of patients had foot deformities and in 76.4% cases arterial hypertension was recorded. 94.1% had a BMI > 25 kg/m², 35.3% were overweight and 58.8% had obesity.

Conclusion. Development and progression of trophic ulcers in patients with neuropathic diabetic foot are determined by the distal neuropathy severity degree and are associated with long term diabetes and requirement in insulin therapy. Poor glycemic control, foot deformities, arterial hypertension, overweight and obesity are the risk factors that should be corrected for prophylaxis and successful treatment of skin lesions in patients with diabetic foot.

Key words: diabetic foot, trophic ulcer, neuropathy score, obesity

170. VACUUM THERAPY IN THE TREATMENT OF PURULENT WOUNDS

Author: **Victor Finciuc**

Scientific adviser: Iacob Vladimir, MD, PhD, Associate Professor; Department of General Surgery and Semiology no.3, Municipal Clinical Hospital no.1

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Negative pressure wound treatment (NPWT) consists of applying a special dressing to the internal wound's environment, controlled by subatmospheric pressure. Sterile sponges with an impermeable membrane connected to a pump delivering subatmospheric pressure are applied to wound's edges. The sponges don't allow bacteria to multiply, and lead to reducing wound's size until healing occurs.

Aim of the study. To evaluate the NPWT benefits in purulent wounds treatment.

Materials and methods. The study was based on 19 cases presented with various purulent wounds of soft tissues treated at the Department of General Surgery, Municipal Clinical Hospital No.1 (Chisinau). There were 12 (63.15%) male and 7 (36.85%) female patients. Age of subjects varied between 32 and 76 years. The NPWT system was used if local signs of wound suppuration during its surgical secondary processing were noticed. Patients were treated under local or general intravenous anesthesia, in aseptic conditions. After the removing of sutures, hydrogen peroxide was used, necrotic masses – removed, and hemostasis – applied. Then a piece of sterile sponge was adjusted and installed into the wound channel. External tip of a tube, placed inside the sponge, exiting through a separate incision. The wound was partially sutured.

Wound's edges were treated with alcohol solution, and then dried. Hermetic film was then applied to cover the wound. The drain was connected to the NPWT system set at the pressure of -125 to -75 mm Hg. The dressings were changed once every 72 hours. During the application of another dressing, the sponge and the previously installed system was removed from the wound, examining the persistence of the necrotic masses. The state of the granulation tissue was also checked. The number of sessions depended on the above listed findings. In the absence of necrotic masses and pathological discharge secondary sutures were applied.

Results. In 3 (15.8%) cases dressings were changed only 2 times – enough for granulation tissue appearance. Twelve (63.15%) patients required 4 and another four (21%) – 6 sessions (exchanges of NPWT system) until sufficient proliferation of the granulation tissue.

Conclusions. We proved the usefulness of NPWT system that has been able to prepare the wounds to secondary sutures applying. Vacuum therapy in the treatment of purulent wounds is associated with shorter period of hospitalization and more effective pain management.

Key words: wounds, granulation tissue, negative pressure, vacuum therapy

171. DECISION FOR SURGERY IN ELDERLY PATIENTS WITH ACUTE APPENDICITIS

Author: **Luminita Vescu**

Scientific adviser: Gutu Eugen, MD, PhD, Professor; Department of General Surgery and Semiology no.3

Nicolae Testemitanu State University of Medicine and Pharmacy of the the Republic of Moldova

Introduction. The diagnosis of acute appendicitis (AA) is difficult and remains one of the most challenging diagnostic issues in surgery in all age groups. Elderly patients have poor response, their symptoms and pathological changes are often inconsistent with abdominal pain, whereas the differential diagnoses are wide and difficult due to many other possible diseases, which may mimic AA.

Aim of the study. To evaluate the informative value of conventional clinical signs on presentation, as well as the role of imaging methods in diagnosis and decision for surgery in the elderly patients with AA.

Materials and methods. A total of 78 patients treated in the Department of General Surgery with histologically confirmed AA were included in the retrospective analysis (Jan-Oct 2017). Women were 52 (66.6%) and men - 26 (33.3%). Among study group 68 (87.2%) patients were under the age of 60 years, and 10 (12.8%) were over 60 years. The information regarding patient's demographic data, initial clinical presentation and assessment, laboratory tests, radiological studies with focus on abdominal ultrasonography (US) and computed tomography (CT) scan was collected.

Results. The duration of the preoperative hospitalization over 24 hours was considerably higher in the elder group: 30% vs. 8.8% in the younger group, but this finding was not statistically significant ($p > 0.05$). Only in two (20%) cases the diagnosis of AA in the elderly patients was based on clinical data only *versus* 44 (64.7%) - in younger population. In the remaining 8 elderly patients additional instrumental methods of diagnosis (abdominal US or CT scan) were required to confirm the appendicitis, to exclude alternative diagnoses of acute abdomen, and to make up the decision for surgical treatment (80% vs. 35.3% in the younger patients, $p < 0.05$).

Conclusions. The classic symptoms of AA are not indicative in elderly patients and cannot serve as a basis for reliable diagnosis, which requires more frequent use of imaging modalities, including USG and CT, and the decision for surgery is often taken on the basis of instrumental data.

Key words: acute appendicitis, elderly, imaging studies, surgery