

**Conclusion.** Deep Sternal Wound infection remains one of the challenges of postoperative patient care after Midline Osteotomy. The mainstay of treatment is the prevention of infection by identifying and addressing the risk factors. Culture Sensitive Antibiotic Therapy and VAC Therapy play a crucial role in the treatment of Deep Sternal Wound Infection. If the infection persists despite optimized medical management, the Surgical Debridement, along with Sternal Reconstruction needs to be considered.

**Reference.**

1. Rupperecht L, Schmid C. Deep sternal wound complications: an overview of old and new therapeutic options. *Open J Cardiovasc Surg.* 2013 Jun 13;6:9-19. doi: 10.4137/OJCS.S11199. PMID: 25512698; PMCID: PMC4222320.
2. Zeitani J, Bertoldo F, Bassano C, Penta de Peppo A, Pellegrino A, El Fakhri FM, Chiariello L. Superficial wound dehiscence after median sternotomy: surgical treatment versus secondary wound healing. *Ann Thorac Surg.* 2004 Feb;77(2):672-5. doi: 10.1016/S0003-4975(03)01594-7. PMID: 14759457.
3. Liberatore, Mauro & Fiore, Vittorio & D'Agostini, Antonio & Prosperi, Daniela & Iurilli, Anna & Santini, Catia & Baiocchi, Pia & Galiè, Maurizia & Nucci, Gian & Sinatra, Riccardo. (2000). Sternal wound infection revisited. *European Journal of Nuclear Medicine and Molecular Imaging.* 27. 660-667. 10.1007/s002590050560.
4. Chen Y, Almeida AA, Mitnovetski S, Goldstein J, Lowe C, Smith JA. Managing deep sternal wound infections with vacuum-assisted closure. *ANZ J Surg.* 2008 May;78(5):333-6. doi: 10.1111/j.1445-2197.2008.04467.x. PMID: 18380722.

DOI: 10.5281/zenodo.6814328

**FREQUENCY OF MICROANGIOPATHY IN DIABETES MELLITUS (ACCORDING TO CAPILLAROSCOPY)**

**ЧАСТОТА РОЗВИТКУ МІКРОАНГІОПАТІЇ ПРИ ЦУКРОВОМУ ДІАБЕТІ (ЗА ДАНИМИ КАПЛЯРОСКОПІЇ)**

**Shaienko Z. O.**

**Шаєнко З. О.**

ORCID: 0000-0002-8718-7589

Полтавський державний медичний університет

Кафедра ендокринології з дитячими інфекційними хворобами

м. Полтава, Україна

Poltava State Medical University

Department of Endocrinology with Children's Infectious Diseases

Poltava, Ukraine

e-mail: Zlataligonenko@gmail.com

Currently, diabetes mellitus (DM) is the most common endocrinological disease, being a major medical, social, and economic problem due to vascular complications of the disease, which lead to disability in young patients and the development of fatal complications in elderly patients.

Particular attention to the genesis of DM complications is paid to morpho-functional changes in the vascular wall. Pathological changes in blood vessels in DM are a universal morphogenetic sign of the development of complications of diabetes mellitus, which are characterized by different frequencies, prevalence, and features in each patient. The works of many researchers are devoted to the study of microcirculatory pathology in DM patients; however, there is no consensus on the morphogenesis of microangiopathy, pathogenesis, prediction, early monitoring of the process, and its prevention. Therefore, capillaroscopy is of great importance as a method of non-invasive examination of this category of patients.

The study aimed to a determination of the influence of the age of patients and duration of diabetes mellitus on the frequency of the development and severity of diabetic microangiopathy.

We observed patients (n=45) with diabetes mellitus aged 19-55 years, with different manifestations and severity of the disease. As a control group, almost healthy people (n=15) have been examined.

The study of capillary circulation was performed by microscopy of the capillaries of the skin fold of the nail bed of the 4<sup>th</sup> finger of the right and left hand and the thumb of the right and left foot using the Dino-Lite MEDL4N5 Pro capillaroscope (the Netherlands). Along with capillaroscopy, the peculiarities of the clinical course of the disease and the general condition of the patient were taken into account.

Assessing the capillaroscopic picture, attention was paid to the number, shape, and location of the vascular loops, the prominence of the subcapillary venous background, the nature of blood flow, as well as the study of individual segments of the capillary loop.

Statistical analysis of the resulting data showed that the severity of DMA was almost the same in all age groups, and insignificant differences were random ( $p > 0.05$ ).

The probability for the development of DMA in patients with diabetes mellitus in the first 5 years of the disease accounts for 65%. Among patients with the disease for 6-10 years, DMA was detected in 94.1%. With a disease duration of more than 10 years, the small vessels of the skin were affected in all patients (100%) with various degrees of severity.

Thus, the findings of the study allow the physician to assume possible changes of capillaries in DM patients at different stages of the disease and on this basis, given the generalized nature of DMA, to estimate the state of the entire microcirculatory bed.

**Conclusion:** 1. DMA of the skin is observed in 82.4% of patients with diabetes mellitus. 2. The severity of DMA on the skin is directly dependent on the duration of the disease. 3. The use of the above indicators allows for predicting the possibility of the development of DMA in the skin and the degree of its severity at different stages of the disease.

DOI: 10.5281/zenodo.6814432

## PERIODONTIC DISEASES AGAINST THE BACKGROUND OF TUBERCULOSIS IN CHILDREN AND ADOLESCENTS: FEATURES OF THE COURSE

**Shylo M. M.**

**Шило М. М.**

Національний медичний університет імені Данила Галицького

Кафедра ортодонції

м. Львів, Україна

Candidate of Medical Sciences, Assistant at the Department of Orthodontics

Danylo Halytsky Lviv National Medical University

Department of Orthodontics

Lviv, Ukraine

e-mail: [kaf\\_orthodontics@meduniv.lviv.ua](mailto:kaf_orthodontics@meduniv.lviv.ua)

**The purpose** of this work is to assess the condition of periodontal tissues in children and adolescents infected with *Mycobacterium tuberculosis* and patients with tuberculosis (TB).

**Materials and methods.** A comprehensive dental examination of 215 children aged 6 to 17 years was carried out, including 63 children and adolescents with TB (1<sup>st</sup> group), 97 infected children (2<sup>nd</sup> group), and 55 healthy children (3<sup>rd</sup> group). The epidemiological, clinical, immunological, and microbiological features of periodontal disease were studied in all groups.

**Results.** The prevalence of periodontal diseases was significantly higher in patients of the 1<sup>st</sup> (88%) and the 2<sup>nd</sup> group (80%) against (41.8%) in the 3<sup>rd</sup> group. The most common pathology was catarrhal gingivitis – 74% in the 1<sup>st</sup>, 70% in the 2<sup>nd</sup> against 38.18% in the 3<sup>rd</sup> group. Periodontitis was diagnosed in 13% of patients in the 1<sup>st</sup>, 10% – the 2<sup>nd</sup> against 3.64% in the 3<sup>rd</sup> group. Catarrhal gingivitis in the 1<sup>st</sup> group had a chronic course (80%), in the 2<sup>nd</sup> – 60% against – 52% in the 3<sup>rd</sup> group. The acute course was most pronounced in the 1<sup>st</sup> group – 23% against 17% in the 2<sup>nd</sup> and 10% – in the 3<sup>rd</sup> group. In all age categories of patients of the 1<sup>st</sup> group, the PMA index was higher in relation to the 2<sup>nd</sup> group – from 52% in 9-11-year-olds to 75% in 15-17-year-olds against 48-69% among children of the 2<sup>nd</sup> group. The prevalence of chronic catarrhal gingivitis and periodontitis increased depending on the severity of the clinical course of TB – from 71% in the 2<sup>nd</sup> group to 75% in the 1<sup>st</sup> group, catarrhal gingivitis had a chronic course and was defined as