

## Nanocomposition Ornidasil in treatment of pyo-inflammatory diseases of soft tissues

*Belyaeva O.<sup>1</sup>, Karol I.<sup>1</sup>, Kryzhevskiy V.<sup>1</sup>, Neshta V.<sup>1</sup>, Golub A.<sup>2</sup>*

<sup>1</sup> *Shupik National Medical Academy of Postgraduate Education,  
9 Dorohozhytska str., 04112, Kyiv, Ukraine,  
E-mail: agolub@ukma.edu.ua*

<sup>2</sup> *National University of Kyiv-Mohyla Academy,  
2 Skovorody str., 04070, Kyiv, Ukraine*

The pyo-inflammatory diseases of soft tissues are of great importance because of their wide spread through surgery patients. Considerable difficulties of their treatment are associated with microorganisms increasing polyantibiotic resistance, tendency to chronicity and ineffective traditional methods of treatment.

The aim of this study was to improve the results of pyo-inflammatory disease treatment with including in algorithm the usage of application nanosorbent Ornidasil comprising nanosilica and ornidazole immobilized there on [1].

The study included 32 patients (main group) with pyo-inflammatory diseases of soft tissues treated with use of Ornidasil. Among them were 1 (3.1%) patient with infected wound, 1 (3.1%) patient with festering haematoma, 1 (3.1%) – suppurative lymphadenitis, 3 (9.4%) patients had carbuncles, 2 (6.2%) – hidradenitis, 3 (9.4%) – festering atheroma, 4 (12.5%) – phlegmon, 4 (12.5%) – panaritium, 6 (18.8%) – abscess, 7 (21.9%) – abscessed boil. Main group consisted of 16 men and 16 women. Average age of patients was  $37.1 \pm 2.6$  years, mean weight –  $74.1 \pm 1.9$  kg. the control group comprised 33 patients in which treatment topically applied 10% sodium chloride to clean wound and after purification – ointment Levomikol. The main and control groups by gender, age, duration of disease, critical conditions of patients and areas of injury were correlated.

For the entire patient group, the number of days (mean  $\pm$  SD) to reaching a clean wound was  $2.8 \pm 0.1$  for Ornidasil compared to  $6.7 \pm 0.4$  for control group. Days to onset of granulation were for main and control groups:  $3.9 \pm 0.1$ ; and  $9.1 \pm 0.7$  days, respectively, and days to onset of epithelialization were:  $4.8 \pm 0.2$  and  $11.4 \pm 0.8$  days, respectively. The number of bed-days for main group was  $7.1 \pm 0.3$  and  $14.3 \pm 1.2$  for control group, respectively.

The complex treatment of main group patients with use of nanopreparation Ornidasil allowed decrease the number of bed-days for 2 times comparing with patients of control group for wound types studied.

---

1 Bilyaeva O., et al. Patent of Ukraine #112523.