

Estimation of humoral factors of regulation of reparation in different outcomes of wound healing in cases of diabetic foot syndrome.

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Purpose: estimation relationship of production of cytokines and eicosanoids and different reactivity and severity of purulo-necrotic process among patients with Syndrome of Diabetic Foot (SDF). Methods. 180 patients with SDF were included and stratificated according to PEDIS classification to 2 groups - 1st Group included E_{<6}D₂₋₃ and the 2nd Group - E_{>6}D₂₋₃. We estimated the serum levels of tyrosine-kinase index (TKI), levels of IL-1 β , TNF α , IL-4, IFN γ , prostaglandins E₂ and (PG E₂ and PG I₂), and leukotriene-4. We also estimated the effectiveness autodermoplastics (ADP), tamponade by dermo-fat grafts (DFG), and different wound dressing. We rated Eicosanoid and Intercytokine indexes (EI and Icl). Results. Among patients of 1st and 2nd Groups dynamic of Icl inversely proportional correlate with the size of wound area (correspondingly r₁=-0,81 and r₂=-0,66). Level of Icl increased on 74.41 \pm 3.86% and 77.23 \pm 9.32 % after debridement. Inertness of IL-1 β and TNF α is the evidence of low reserve of anti-inflammatory agents that is sequentness of long time persistence of purulo-necrotic process. Suppression of IFN γ is key factor of spreading of destruction of tissue. Among 24% patients with low TKI we noticed decreasing of Icl -7-37% according to basal level. It was determined increasing levels of IL-4 and hyperproduction of IFN γ that increased migration of neutrophils, activation of macrophages so lead to foot destruction. Effectiveness of different method of topical treatment (wound dressing, ADP or tamponade by DFG directly depends on changing of Icl before- and after- debridement). Basic level of PG-E₂ in 2nd group less the normal level up to 30-42% vs. 38-69% in 1st group (p<0,01). Among patients with increased Icl after debridement all wound dressing is effective only if decreasing EI due to increasing PG-I₂. Good effect of using tamponade by DFG possible if EI due to growth of PG-E₂. If patients have low level of Icl and high EK they need to undergone repeated debridement and tamponade by DFG independently from study group. These factors leads to prolongation of time of treatment and in finished by low (7%) and upper (2%) amputations. Conclusion. Level of individual reactivity manifested on early stages of SDF by different dynamic of Icl. Icl shows degree of inflammatory destructions and humoral deregulation. Dynamic of production of Eicosanoids shows reparation progress. EI reflects dynamic of wound healing and possible effect of different methods of treatment