

## CLOSTRIDIAL SOFT-TISSUE INFECTION AFTER SEVERE LEG INJURY

**Simeonov R and Cokleska N**

University Clinic of Pediatric Surgery, Macedonia

**Background:** Clostridial soft-tissue infection usually occurs after trauma. Symptoms may include edema, pain, gas with crepitation, foul-smelling exudates, intense coloration of the site, and progression to shock, renal failure, and sometimes death. Its treatment is very difficult and uncertain.

**Case summary:** This is a case report of a 5 years old child with concomitant unilateral leg and foot trauma after being run over by agriculture machine. In the time of admission the child is with normal vital parameters, normal blood tension and normal heart rate. Plane x-ray shows small abris fracture on distal femur. After short preoperative preparation the child was transported to the operating room. There was an extensive wound on the thigh, popliteal fossa, calf and the foot on the same leg. After exploring the wound, lesion on the popliteal artery was detected, and crushed muscles (soleus and gastrocnemius). Large quantity of soil and plant debris was detected in the wound. Initial wound cleaning was performed followed by popliteal artery reconstruction procedure with venous graft and primary muscular and skin reconstruction. Few vacuum drainage systems were set under the skin and under the muscles in order to avoid infection. The child was admitted to the intensive care unit. Double antibiotic therapy was used, good hydration and monitoring. Vascular Doppler ultrasonography was performed the next day. Doppler pulse recordings on popliteal artery, dorsalis pedis artery and retromaleolaris artery were normal. Three days after the injury, the first signs of infection were detected. Microbiological result was positive for Clostridium species, as expected. Clostridial soft-tissue infection included cellulitis, myositis, and clostridial myonecrosis. Symptoms included edema, pain, foul-smelling exudates, intense coloration of the site, fever, but despite high temperature, blood culture test was negative, no signs for sepsis or kidney failure. Surgical debridement to all necrotic tissue (skin and muscles) was the next step in the treatment. The skin of the dorsal site of the thigh, popliteal fossa and calf was completely removed. After the procedure, the patient has undergone intensive local wound treatment. After dealing with the infection, Thiersch skin graft was indicated. It was placed on the popliteal fossa in order to avoid knee joint contracture. On the areas which were lack of skin, we used special treatment with platelet rich fibrin for better and faster epithelization and regeneration. The final result was very good. After three mounts of treatment, there was complete wound epithelization. Intensive physical therapy resulted with good knee joint movement, good muscle condition and return to everyday activities.

**Conclusion:** Clostridial soft-tissue infection in children is a serious life-threatening complication. High index of suspicion is crucial to start early management and treatment.

### Biography

Dr. Risto is President of the Association of Pediatric Surgeons of Macedonia & Member of the European and World Association of Pediatric Surgeons. He is currently working for Acibadem Sistina Hospital – Skopje.

[rsto.simeonov@acibademsistina.mk](mailto:rsto.simeonov@acibademsistina.mk)