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A CASE OF NECROTIZING FASCIITIS

Akif GÜLEÇ, Yavuz COŞKUN***

***Anahtar Kelimeler**:Nekrotizan Fassitis, İntravenöz İmmunglobulin, Thrombacytosis*
***Key Words**:Necrotizing Fasciitis, Intravenous Immunoglobulin, Thrombocytosis*

SUMMARY

A case of 14 year age girl with flexion contracture on lower extremities, experiencing necrotising fasciitis after correction operation and medical and surgical management of patient were presented.

ÖZET

Nekrotizan Fassitisli Bir Vaka Takdimi

Ondört yaşında bir kızda, alt ekstremitelerde flexion kontraktürü nedeniyle opere edilmeyi takiben ortaya çıkan nekrotizan fassitis tablosu ve uygulanan massif antibiyoterapi, immunoglobulin tedavisi ve cerrahi yaklaşım ele alındı.

GİRİŞ

Necrotizing fasciitis that is relatively rare is a life-threatening infection. The infection usually associated with systemic toxicity causes massive necrosis primarily in the deep or superficial fascia (1,2,3). Although the most common etiologic agent is group A Beta-hemolytic Streptococcus, the other bacteria such as Staphylococcus aureus, anaerobic Streptococcus, Bacteroides or even more than one agent is frequeently encountered (1,3).

We were not able to find subjecting this condition in Turkey, therefore we presented here a patient with necrotizing fasciitis.

CASE REPORT

A 14 year old girl having bilaterally severe flexion contracture on her both knee due to cerebral palsy was admitted to our orthopedic surgery department for surgical correction. She was not able to walk without help. A very slight mental retardation was also present. She had a successful corection operation known Egger's procedure on her right knee six months before. At this time she was admitted to be performed the same procedure on the other knee. There was no history, clinical and laboratory finding of diabetes mellitus, vascular anomalia, immunodeficiency and recent infection.

After operation, on the fourth day, she had little pain and regional pallor suggesting ischemia of the skin in her posterior aspect of the knee. Soon after, a few of sutures were removed and discharge of purulent material was observed in the site of operative

* *Associate Proffessor of Orthopedics, Gaziantep University Faculty of Medicine*
** *Associate Proffessor of Pediatrics, Gaziantep University Faculty of Medicine*

incision. She had also high temparature. At this period laboratory finding revealed high sedimantation rate(SR) 80 mm/h, CRP(+++), Leukocytosis 15.100/mm^3 and 8.5 gr/dl. On gram stain of purulent material, gram positive cocci were seen and cultural examination confirmed the bacteria of A group beta hemolytic streptococcus and Staphylococcus Aureus. No abnormality was found in urine, biochemical and the other routine microbiologic examinations.

Following detection of gram positive cocci in gram stain, high dose penicilline and gentamycine was immediately started intravenously. But on postoperative seventh day, remarkable skin necrosis eestablished without gas or crepitance in tissues. Therefore removal of necrotic tissue and debridement were performed immadiately. At surgery, the finding of edematous, dull-gray and extensive necrotic fascia confirmed the diagnosis of necrotizing fasciitis. The fascial necrosis was quite wider than skin necrosis and extensive undermining of skin noticed while subcutaneous and muscle necrosis were absent. Necrotic fascial tissue was excised as possible as.

General condition of the patient gradually worsened. Toxemia associated with high fever, lethargy and malasie was profound. Sedimantation rate and hemoglobin level continued to decrease to 6 gr/dl. The noticeable increase in platelet count (1.027.000/mm^3) was seen at this period. With the finding of toxemia, intravenous immunoglobulin was just given with the dose of 400 mg/kg daily for five days. At the same time Penicilline and Gentamicine therapy was changed to Penicilline plus Vancomycine and neutromycine. The patients also received aspirin as anticoagulant. This poor condition of the patient continued another two weeks while necrotic process of the fascia was spreading to the buttock upward and to the middle of the cruris downward. (Figure 1 and 2). Repetetive aggressive fascial debridements and intensive wound dressing changes (twice a day) were carried out during the course of the disease. Multiple fresh blood transfusion were given to the patient.

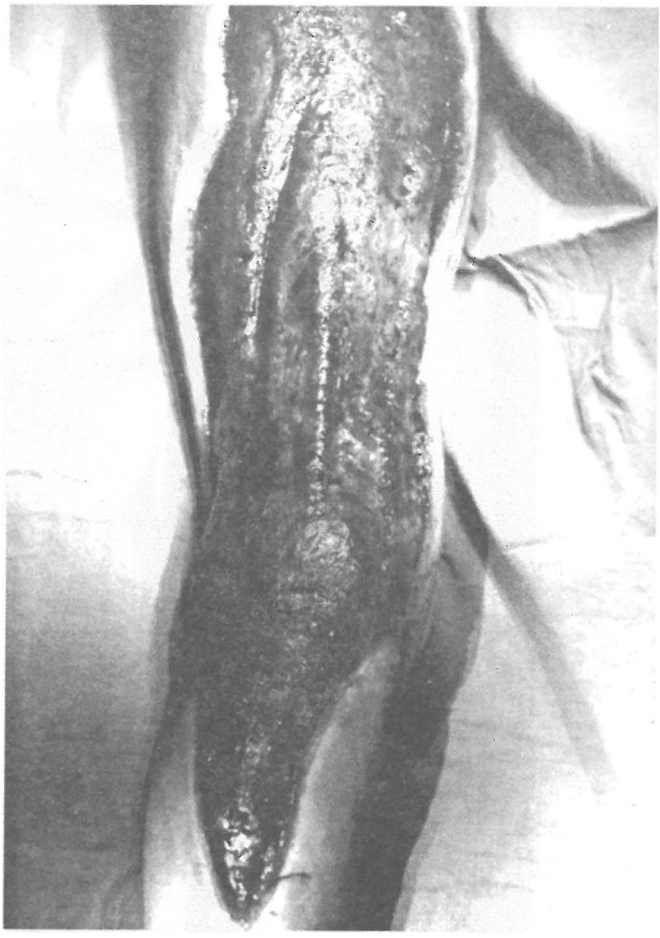

Figure1 : Notice that the edematous, dully-gray necrotic fascaia at the upper of the wound (postoperative 2 nd week)

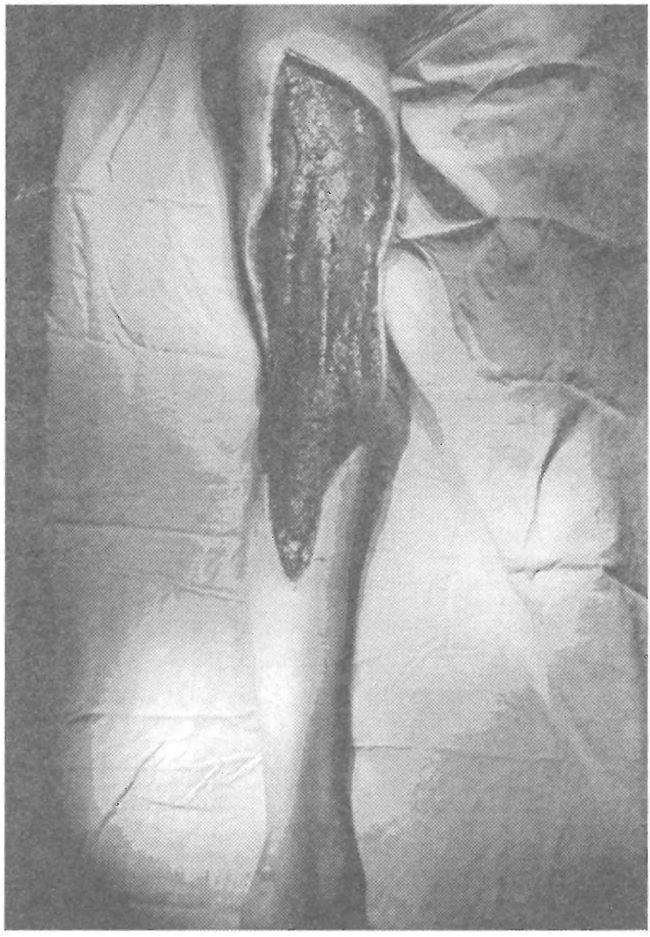

Figure 2: You see the posterior aspect of the knee

At the end of the third week, gradual improvement in patient's condition was seen. Temperature and SR fell to normal, thrombocytosis disappeared. Fascial necrosis was controlled and purulent discharge from wound markedly diminished. In the fourth fifth week of hospitalization, infection was completely controlled, but the patient showed psychiatric symptoms such as depression, anarexia, anxiety, meaningless crying, voluntary urine and feces incontinence. Thioridazine and Amitriptyline were begun in psychiatric consultation.

Then, the patient was transferred to the plastic surgery department for skin graffing. The wound healed and was covered with split thickness skin graft completely. Unufortunately psychic symptoms particulary anorexia progressed and three months later the patient was lost because of malnutrition and electrolyte disturbances.

DISCUSSION

Necrotizing fasciitis is a rare condition and reliable data on incidence and prognosis of the disease are not available, since diagnosis is so often missed. Death usually occurs particullarly elderly and lately diagnosed cases (4,5,6). Also prognosis is almost fatal in immunocompromisd and diabetics (6,7). Voros and all (8) emphasised the importance of early diagnosis and early extensive surgery and antibiotherapy in the treatment of the disease.

The diagnosis is frequently made with clinical finding and microbiological examination. Although, magnetic resonance, computerized tomography and frozen section are helpful in the early diagnosis of the disease, it was not so difficult to consider necrotizing fasciitis in our patient with the finding postoperative massive and obvious necrosis in fascia without muscle involvement in surgical intervention and microbiological examination (9,10). In the differential diagnosis, it is essential to distinguish the disease from cellulitis, localized abccess and phlebitis which are less severe conditions. And also necrotizing fasciitis should not to be confused with Clostridial necrotizing myositis, gangrene to avoid overtreatment that may include amputation.

As reported the most common etiologic agents are A group Beta hemolytic streptococcus and Staphylococcus, Bacteroides and anaerobic organisms (1,2,3). In our case responsible agents were beta-hemolytic streptococcus and Staphylococcus aureus together.

Since it is the sine qua non of effective therapy of the disease, we performed aggressive surgical debridement in the early begining of the necrosis (8). Meticulous suppotive treatment and intensive intravenous antibiotherapy were no doupt helped to control infection. The use and eficacy of intravenous immunoglobulin in the treatment of some diseases such as iso-immun thrombocytopeni, neonatal sepsis etc. well documented (11). We have also given i.v. Imunoglobulin to our patient. It is quite probable that this regimen contributed to control and to improve the infection and patient's status. So it can be suggested to use i.v. immunoglobulin particularly in patients with poor prognostic factors.

Thrombocytosis wich arose in the patient was an unusual finding. Whether this might be caused by the use of i.v. Immunoglobulin is not clear. Because microthrombus in regional vessels are well known in pathological examination, the patient was given aspirin as an anti-coagulant to prevent the side effect of thrombocytosis.

It was a great ungortunate for us the death of patient from malnutrition and electrolyte imbalances caused by depression and profound anorexia, after complete recovery of necrotizing fasciitis. In our clinical practice it was the first time we have seen a case with necrotizing fasciitis and as for as we know this may be the first report in our country.

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