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RESEARCH ARTICLE

COVERAGE OF LOSS OF SUBSTANCES FOLLOWING NECROTIZING FASCIITIS

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Abstract

Necrotizingfasciitisis a rare infection of the skin and deepsubcutaneous tissues rapidlyprogressing to necrosis. It is a medico-surgical emergency whose management charge ismultidisciplinary, itis life-threateningwith a mortality rate rangingfrom 20 to 30%. Weconducted a retrospectivestudyincluding 20 patients in whom the diagnosis of necrotizingfasciitiswasretained. The purpose of thisstudyis to detailourtherapeuticexperienceduringthisperiod in the management of necrotizingfasciitis and comparisonwithliterature data. All our patients received emergency medical and surgicaltreatment. Directedhealingwascarried out in 100% of our patients, simple in 95% and with VAC negative pressure therapyin 5% of cases with an average duration hospitalization of 15 days (rangingfrom 3 to 60 days) leading to completehealingin 10%, the remaining 90% provided skin graftcoverage. 95% of our patients weresatisfiedwith the result. 100% of our patients weretranslated post- surgerywith a physiotherapist for preventiverehabilitation of sequelaeretractable.

Introduction:-

Necrotizingfasciitis (NF) isa rare rapidlyprogressing, inflammatory infection of the fascia with the secondaryinvolvement of skin, subcutaneous tissues and muscle (Morgan, 2010). The infection ishighlyassociatedwithvery quick progressive necrosis of any of the layers in the soft tissue compartment, such as dermis, subcutaneous tissue, superficial fascia, deep fascia and muscle (Mulcahy and Richardson, 2010). NF is a severeform of soft tissue infection. Several terminologies wereused to describenecrotizingfasciitis (NF) such as hospitalgangrene, streptococcalgangrene, acute dermalgangrene, suppurative fasciitis, necrotizingerysipelas and synergisticnecrotizing cellulites. Wilson, (1952) gave the term 'necrotizingfasciitis' to describe the disease and stillitis the preferredterminology in thesedays, as itdescribes the most consistent and key features of the disease due to characteristicnecrosis of the fascia related to the lesion. The high morbidity and mortalityassociatedwith the diseasemakesit an emergency. Earlydebridementprovides a favourableoutcome. Hence, itis a surgical emergency. More than 90% of NF patients mayalsoneed intensive care and organsupportivetherapy and thismakesit a medical emergency. The coverage of the loss of substance secondary to the flattening of the FN uses severalmeansrangingfrom the simplest (primary and secondaryhealing, skin grafting) to the mostcomplicated (Locoregional or free flaps).

The originality of thisstudyis, on the one hand, to present a series of DHBN-FNstreated and monitored over the past five years, and on the other hand, to compare the therapeuticresultswiththose of the literature.

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Materiel And Methods:-

This workis a retrospectivestudywith a descriptive aim and analyticalfromJanuary 2019 to January 2021 in patients admitted to the surgerydepartment plastic and burnsfrom the Marrakech UniversityHospital for DHBN-FN. Patient data wascollected on the basis of medical records and operating reports using the archives and the HOSIX administrative system and finally a previouslyestablished operating sheet. In terms of methods, our patients benefitedfrom a gesture to cover the loss of substance aftertwo stages, the first aflattening of the necrotizingfasciitisundergeneralanesthesia, and the second a directedhealing

Results:-

Directed Healing

Figure 1

All our patients were candidates for directedhealingin 95% of uncomplicated cases and in the remaining 5% by negative pressure (VAC).

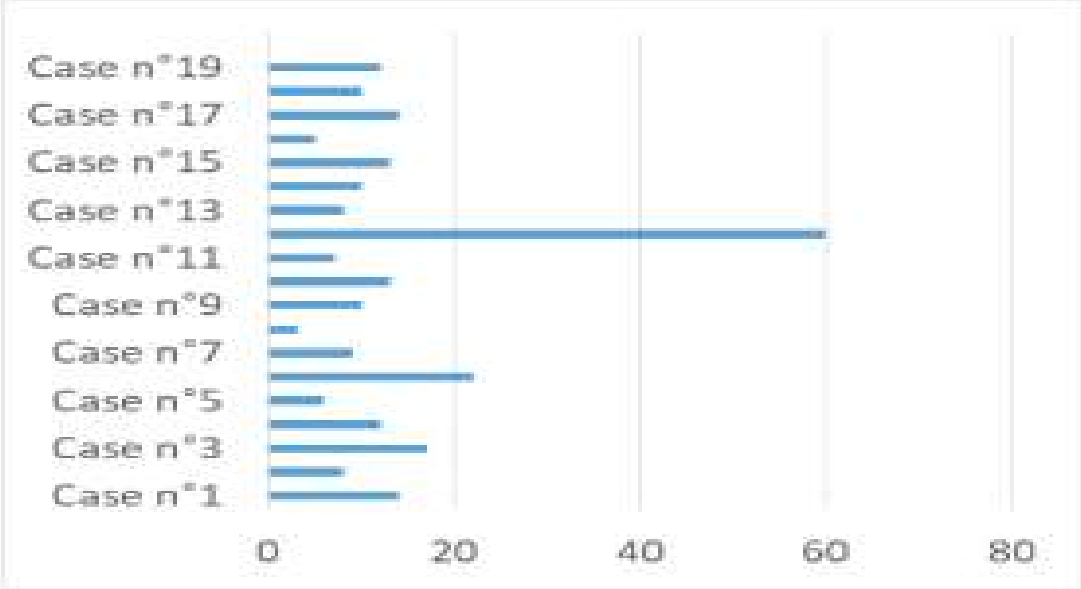


Figure 2

The averagehospitalization in ourseriesis 13 dayswithextremesrangingfrom 3 to 60 dayswhichremainslowerthan the averagedescribed in the literature and also in the study of Mr. Ahmedou EL ALEM () in 2017 whichwas 23 dayswithextremesrangingfrom 17 days and 54 days and 33 days for the experience at the Nancy CHRU between 2005 and 2014.

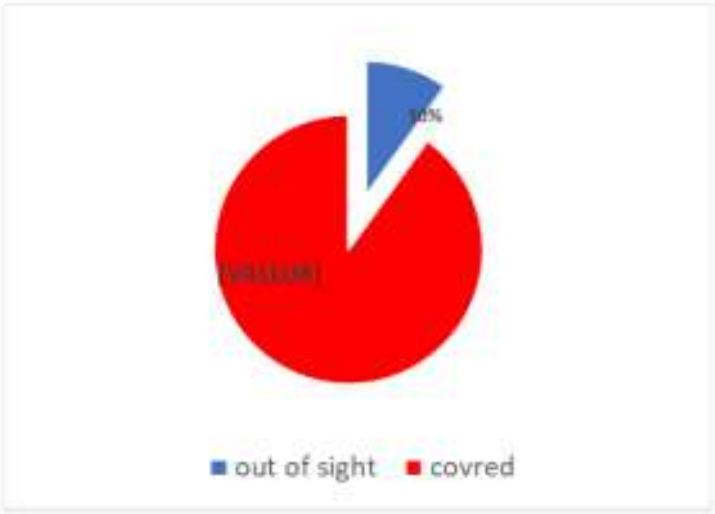


Figure 3

This canbeexplained by the protocol of our service whichis to monitor patients on an outpatient basis with pro-inflammatory dressings in order to obtain a satisfactorybasementafterhavingsuppressed the general and local infection and stabilized the patient on all levels.

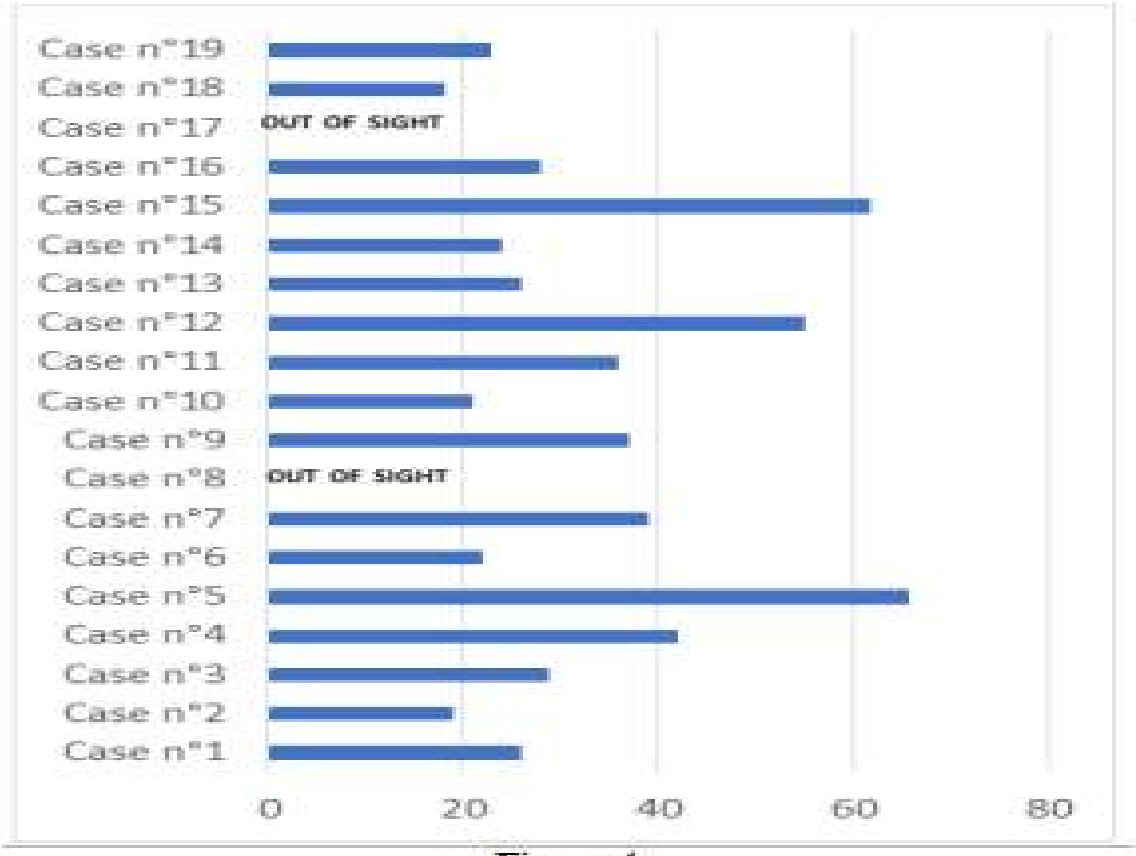


Figure 4

Coverage by skin graftwasusedin 90%, makingit the mostcommon reconstruction procedure, knowingthat the remaining 10% werelost to sight.

This agreeswith data from the literature and alsofrom the study at the UniversityHospital of Nancy between 2005 and 2014 with a rate of 48%.

In ourseries, the coverage time is 33 days as described in the literaturerangingfrom 21 to 30 days
In the case of a non-suturable PDS or withoutexposure of noble structure, whichwas the case in ourseries, skin graftingisoften the treatment of choicegivenitssimplicity and reliability in theseoftenfragilepatients.

But itisnecessary to strive to anticipate the retractile and chromicsequelaeoftenfound.
The cell culture of keratinocytesis attractive but isonly possible for large surfaces). Moreover, itrequires a specificlaboratory and asignificantadditionalcost.

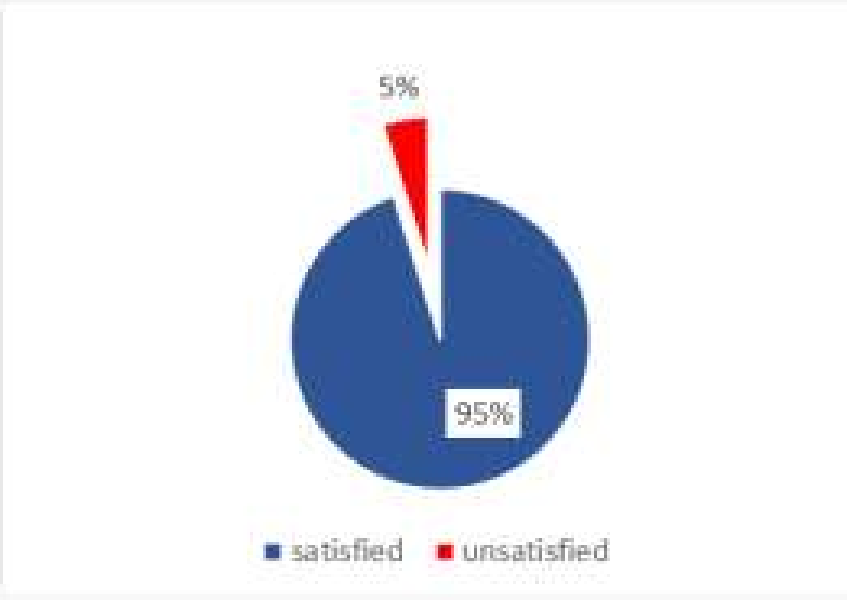
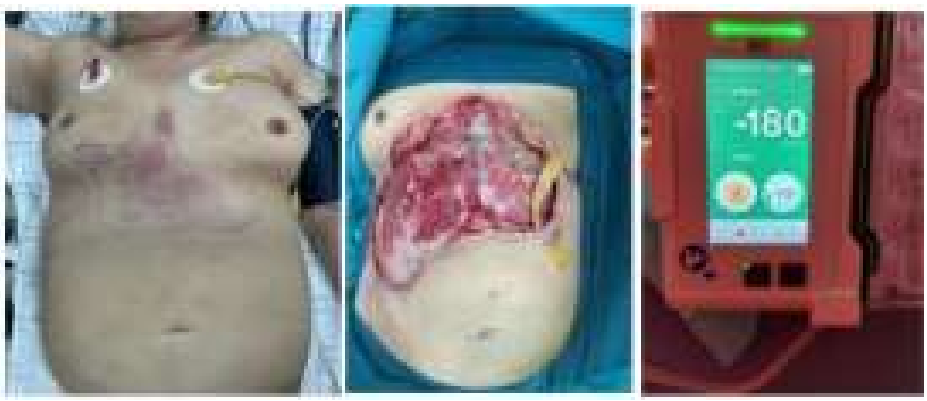


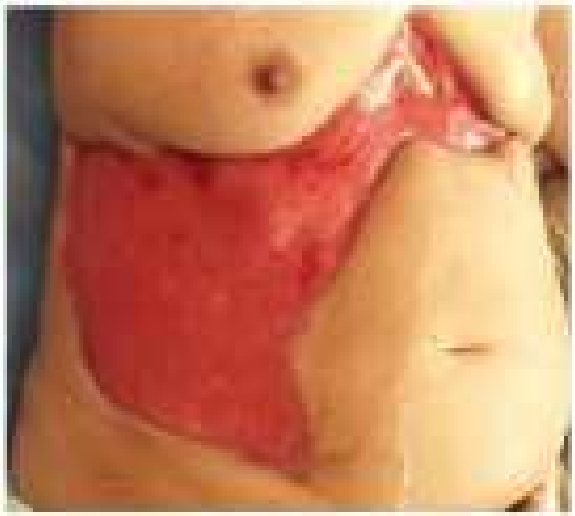
Figure 5

Someauthorsalso propose the use of artificialdermis, the advantage of whichis the immediatecoverageallowingreduction of protein and electrolytelosses, protection against contamination, reduction of pain during care



100% of our patients werereferredpostoperatively to a physiotherapist for preventiverehabilitation of retractilesequelae. 95% of our patients weresatisfiedwith the results.

Here, we are in front of a 55-year-old patient, with a history of type II diabeteswhichrepresents the essential risk factor, shepresented to the emergency room for thoraco-abdominal necrotizingfasciitiswhichwasflattenedseveral times. On several occasions, on D8 the infection wascontrolledwithobtaining a wide PDS exposing the bone opposite the first rib, weopted for healingdirected by negative pressure giventhat the patient has the means to getsome.



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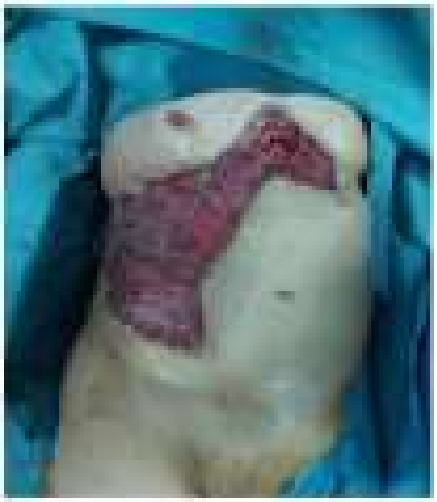

J62

At 55 days a clean redbudwasobtained, 7 dayslatershewasadmitted to the operating room for a semi-thickexpandedmesh skin graftwithtrephination of exposedbone, resulting in a PDS of 10mm/7mm

J60 Post op

Wesaw the patient again in consultation withcompletehealing.

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