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STUDY OF 24 CASES OF NECROTISING FASCIITIS FOR PREDISPOSING FACTOR AND THEIR MANAGEMENT

Dr. Prabhat Kumar Sinha[1] (Surgery Resident), Dr. Neha Thawait[2] (Surgery Resident) & Dr. Atul Vyas[3] (Prof. & HOD)

Dept. of General Surgery, Index Medical College Hospital & Research Centre, Indore[1,2&3]

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Corresponding author: Dr. Neha Thawait
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Abstract

Background & Method: Whole study was done in our Institute with patient attending outdoor and emergency department of INDEX MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTER. Collection of data –From each patient thorough history was taken, clinically examination was done, vitals where recorded, systemic examination was done and local examination of the lesion was done. Every patient base line investigation of complete blood count, renal function test liver function test serum electrolyte blood grouping serology of of HIV and Hbs antigen were done.
Result: Most of the Patient was in the age group of 40years to 60 years.
Conclusion: A total of 24 cases of necrotizing fasciitis were studied over 1st June 2019 to 25 march 2020. Greater number of cases was reported among middle aged group of 40years to 60 years. Rarity of disease among pediatric age groups affected person were mostly male -21, female-3 most common precipitating factors was trauma. Most common predisposing factors were advanced age, anemia, diabetes and alcoholism. Microbiological profile of patients reveals most polymicrobial organisms involved, most common organisms were streptococcus>E. coli,> staphylococci> pseudomonas/.
Keywords: necrotizing, fasciitis, predisposing & management.

Introduction

Necrotising fasciitis is also known as flesh eating disease. Necrotising fasciitis is an infection that results in the spreading inflammation of the skin, deep fascia and soft tissue with extensive destruction and may lead to death. Leads to toxaemia due to Streptococcus pyogenes infection and often due to mixed infection like anerobes coliforms, gram-negative organisms.
Necrotizing fasciitis is common in old age, smoking people, Diabetes mellitus, immunosuppressed, malnourished, obese and HIV infected people. Trauma is a common precipitating factor.

Types

Clinically divided in three stage
Stage 1: Fever, erythema, oedema, warm skin, tenderness.
Stage 2: Blisters and bullae formation
Stage 3: Hypoaesthesia or anaesthesia, crpitus,tissue necrosis, haemorrhagic bullae.

Aims & Objectives

To early diagnose the patient suffering from necrotising fasciitis
To correlate with predisposing factors
To study for early and proper management of patient

Material & Method

Whole study was done in our Institute with patient attending outdoor and emergency department of INDEX MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTER.
Sample- 24 patients were selected who were attended during the period of 1st June 2019 to 25th March 2020
Collection of data –From each patient thorough history was taken, clinically examination was done, vitals where recorded, systemic examination was done and local examination of the lesion was done.
Every patient base line investigation of complete blood count, renal function test liver function test serum electrolyte blood grouping serology of of HIV and Hbs antigen were done.

Parameter and cutoff were used as-

1. Fever- axillary temperature more than 38°C
2. Anemia –Hb% less than 10 mg/dl.
3. Renal dysfunction- serum creatinine more than 2 mg/dl.

Leukocytosis- wbc count >10000/ ml.
Hepatic dysfunction –serum bilirubin more than 3mg/ dl.
Radiological examination of soft tissue was done by ultrasound of local area.

Inclusion criteria-
Patient coming with necrotising fasciitis into outdoor or emergency department of index medical college Hospital during the period of 1st June 2019 to 25th March 2020.

Exclusion criteria:
Patient not willing for participating in study
Patient referred to any other Centre or absconded during the period

Management of patient:
Patients attending in emergency department managed according to abc guideline
Airway secured as if needed
Breathing movement monitored and oxygen saturation monitored, intubation and ventilator support given as if needed

Circulation: Intravenous fluids given as per requirement and latter fresh blood transfusion done as per need.
Catheterization and monitoring of hourly urine outputs done.
Blood sample sent for CBC, LFT, RCT, Serum Electrolyte, Random blood sugar, serology for HIV & HBs Ag.
Pus sent for Pus culture and sensitivity.
Intravenous antibiotics of third generation cephalosporin started latter antibiotics decided as per pus culture sensitivity reports.

Procedure: Radical wound debridement of gangrenous skin and necrosed tissue done
Once Patient recovered and healthy granulation of tissue appears SSG were done.

Results

Table 1: Age distribution

S. No.	Predisposing Factors	Patients Affected
1	<20 years-	01
2	21- 40 years-	05
3	41- 60 years-	14
4	61 – 80 years-	04

Most of the Patient were in the age group of 40years to 60 years.

Table 2: Age distribution

S. No.	Age Group	Patients Affected
1	Diabetes-	08 persons
2	Peripheral vascular disease-	01 persons
3	Age>40-	18 persons
4	Anemia-	13 persons
5	Chronic alcoholic-	05 persons
6	Acquired immuno deficiency-	00 persons

Table 3: Anatomical sites affected -

S. No.	ORGAN INVOLVED	NUMBER OF PERSONS AFFECTED
1	Lower limb-	18
2	Upper limb-	02
3	Buttock and back-	04
4	Chest-	00
5	Abdomen-	00

Table 4: Culture reports

S. No.	Organism Found In Pus Culture	Number Of Infected Patient
1	Streptococcus-	19
2	Staphylococci-	12
3	E.coli-	17
4	Pseudomonas-	05
5	Klebsiella-	06

Table 5: Investigation

S. No.	Investigation	Patients Affected
1	Anemia-	13
2	Leucocytosis-	16
3	Serum creatinine >2 mg/dl-	03
4	Hyperglycemia-	06
5	Jaundice-.	01

Table 6: Complications-

S. No.	Complications	Patients Affected
1	Anemia-	13
2	Leucocytosis-	16
3	Serum creatinine >2 mg/dl-	03
4	Hyperglycemia-	06
5	Jaundice-.	01

Conclusion

A total of 24 cases of necrotizing fascitis were studied over 1st June 2019 to 25 march 2020. Greater number of cases was reported among middle aged group of 40years to 60 years. Rarity of disease among pediatric age groups affected person were mostly male -21, female-3 most common precipitating factors was trauma. Most common predisposing factors were advanced age, anemia, diabetes and alcoholism. Microbiological profile of patients reveals most polymicrobial organisms involved, most common organisms were streptococcus>E. coli,> staphylococci>pseudomonas/.

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