

Osteomyelitis (OM) In Patients with Diabetic Foot Infections (DFI) In a Tertiary Care Centre, GRH, Madurai. – A Clinical Audit

Dr. G. Saravanakumar, Dr. M. Joyner Abraham

M.S., D.A (Assistant Profesor, Department Of General Surgery, Madurai Medical College)

M.S (Post Graduate, Department Of General Surgery, Madurai Medical College)

Corresponding Auther: Dr. G. Saravanakumar

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I. Background:

Of The 40 Million Individuals With Diabetes In India, 10 – 15% Is At The Risk Of Developing Diabetic Foot Infection Acute Or Chronic Osteomyelitis Is A Common Complication In Patients With Diabetic Foot Infection. Proper Identification And Management Would Have Great Influence In The Outcome Of These Patients Reducing The Cost, Morbidity And Sometimes The Mortality

Aim: To Clinically Audit And Assess The Incidence, Microbiology, Type Of Treatment, Outcome And Factors Associated With Om In Patients With Dfi.

Method: Retrospective Chart Analysis Of Patients Admitted With Dfi Who Were Done Bone Cultures During The Period From Jan 2017 To Dec 2017 In Department Of General Surgery, Government Rajaji Hospital, Madurai Medical College. The Demographic Details, Co Morbidities, Clinical Course, Microbiological Data, And The Outcome Of Each Patient Were Collected And Analysed.

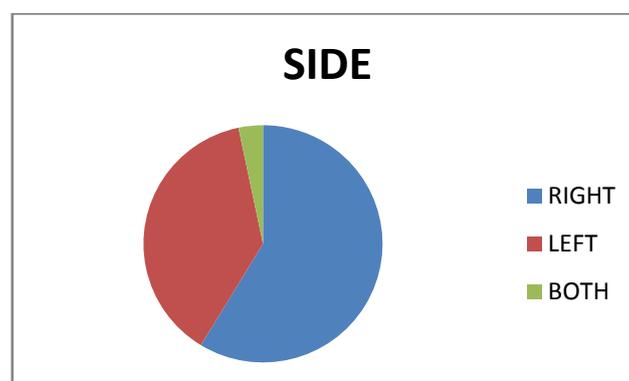
Outcome: Healed Cases Defined As Complete Epithelialisation, Ssg, Or Complete Suture Removal After Surgery During Follow Up.

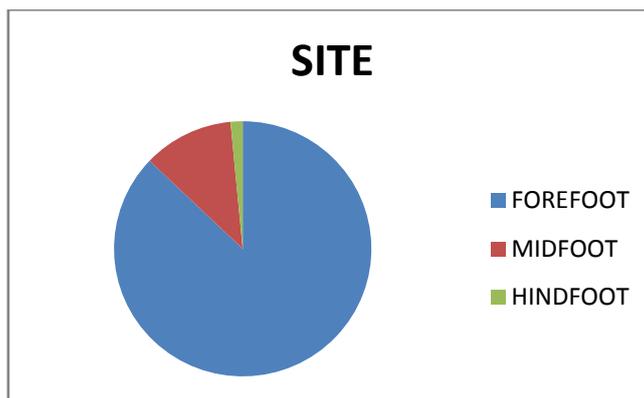
Inlusion Criteria: Only Patients With Wagner’s Scale More Than Grade 2 Who Had A Bone Culture Positive Were Included In Analysis

Results:

Among 235 Patients Admitted With Dfi, [39.4%] 92 Patients Had Bone Cultures Done Were Included For Analysis.

In This Group Mean Age Was 60.33 +/- 9.55 Years, Male:Female 79.3: 20.7





Co Morbidities:

Condition	%
Peripheral Neuropathy	99
Povd	69.1
Hypertension	60.9
Dyslipidemia	38
Ckd	20.7
Cad	29.3

Diagnosis Of Om Confirmed By X Ray Finding In 75% Of Patients

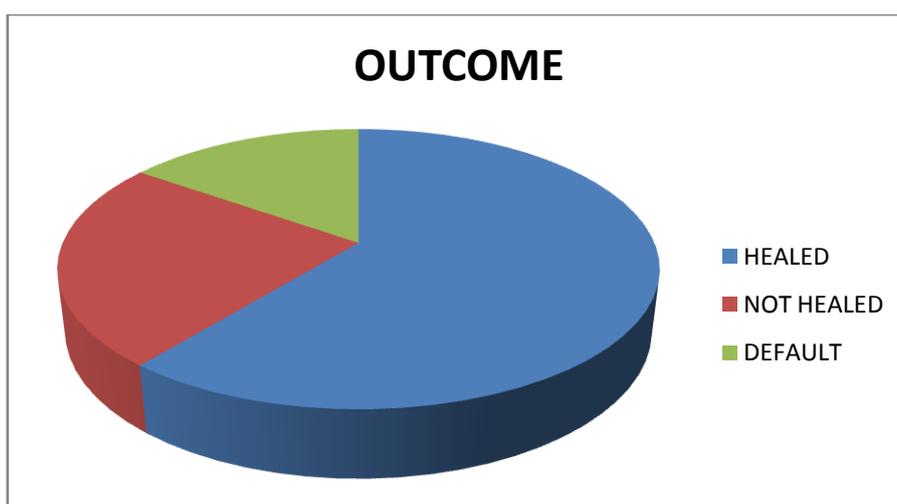
Microbiology:

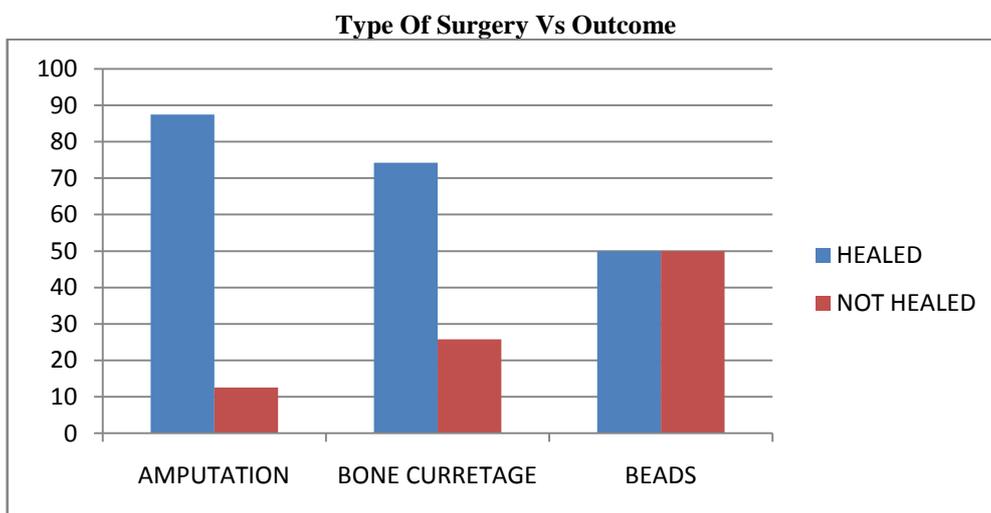
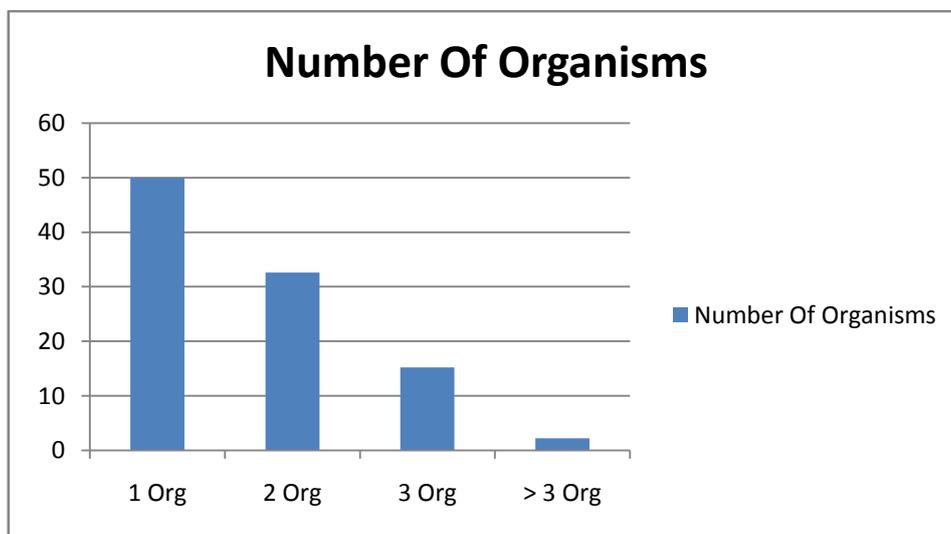
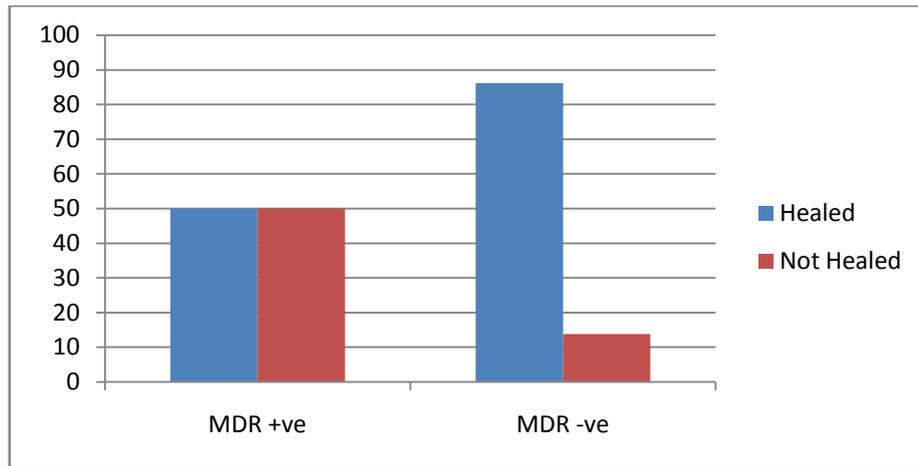
Organism	%
Staphylococcus Aureus	30.4
Enterococcus Faecalis	29.3
Pseudomonas Aeruginosa	25
Fungi	22.9
Mdr(Multi Drug Resistance) +Ve	17.4
Esbl(Extended Spectrum Beta Lactamase) +Ve	17.4

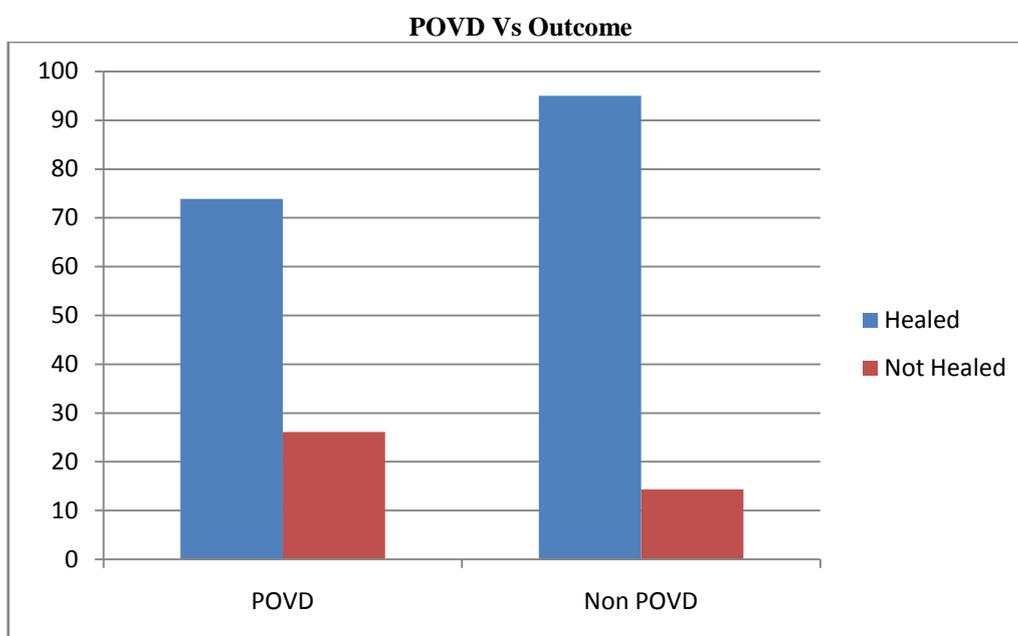
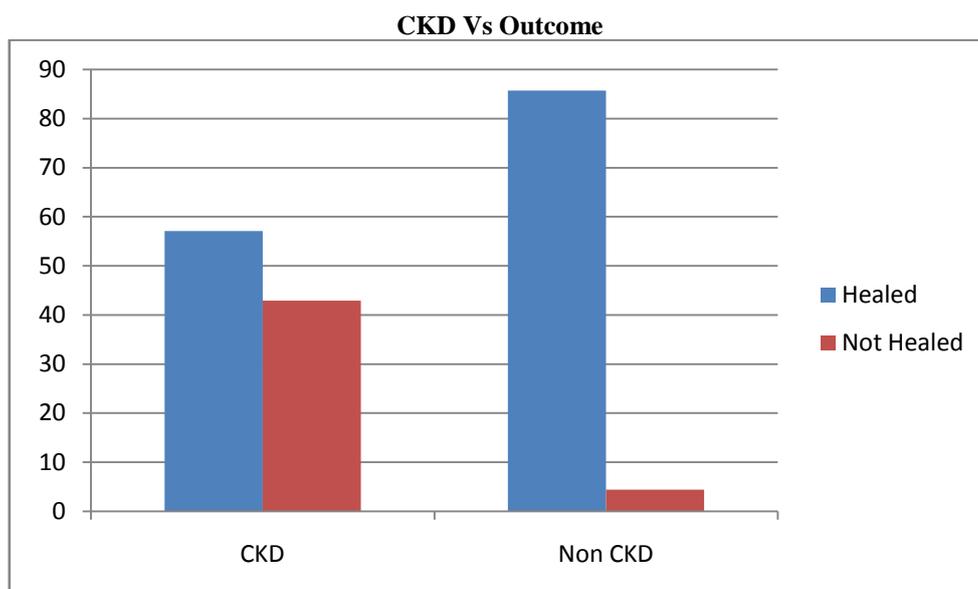
II. Outcome:

Out Of 92 Patients Analysed, 72 Patients Came For Follow Up, Number Of Patients Healed In That Is 80% With Mean Duration Of Treatment 10.13+/-8.15 Weeks.

There Is Statistically Significant Delay In Healing Patients With Povd (P Value 0.043), Ckd (P Value 0.027) And Patients Who Are Mdr +Ve (P Value 0.011) Especially Pseudomonas Aeruginosa.







III. Discussion:

Dfi Remains A Difficult Clinical Infection, Particularly When There Is Om, Often Resulting In Amputation. Treatment Requires The Combination Of Early Surgical And Anti Microbial Therapy Which Is Shown In Our Study, The Amputated Cases Show Better Outcome.

Our Bacteriological Profile Also Proves That The Commonest Organism Is Staphylococcus Aureus As Shown By Many Other Studies.

Mdr Strains Particularly Pseudomonas Pose A Big Challenge Emphasizing Optimal Use Of Antibiotics

IV. Conclusion:

The Outcome Of Patients With Dfi Having Om Depends On The Factors Like Povd, Ckd, And Mdr Bacteriology Apart From The Routine Wound Care. 40 % Of Patients With Dfi Have Proven Om And It Is More Common In Fore Foot Lesions. 50 % Had More Than One Organism Positive In Their Cultures.

Reference:

- [1] Oxford Journals Medicine Clinical Infectious Diseases Volume23, Issue 2pp. 286-291, Volume 25, Issue 6pp. 1318-1326, Volume 42, Issue1 Pp 63-65
- [2] The American Journal Of Medicine Volume 83, Issue 4 Pages 653-660
- [3] A Retrospective Cohort Study With Long Term Follow Up Arch Intern Med1999, 159:851-856

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