

Amit Jain's Modified Grading System For Debridement In Diabetic Lower Limb

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ABSTRACT: Debridement in diabetic limb wounds is one of the essential procedure which has been oftentimes neglected and undervalued for decades. However, it is now a well documented fact that surgical debridement is a highly skilled surgical procedure requiring expertise, especially if one wants to have an excellent outcome for diabetic foot. Amit Jain's grading for debridement is one of the novel method of classifying debridement in diabetic lower limb. This article describes a small modification in this existing grading system so that it can be used in equation to TNM method that is frequently used in oncological practice.

Keyword's : Debridement, Amit Jain's, Grading, Modified

INTRODUCTION

Diabetic foot poses a significant socioeconomic and health care problem, having a negative effect on patients quality of life and imposing a huge socioeconomic burden [1]. The problems of diabetic foot ranges from infection to non healing of wounds with ultimate outcome of limb loss if neglected.

Debridement is one of the essential surgical procedure which is required for a successful and effective wound closure in care of diabetic foot wounds [2]. Debridement is in-fact one of the most commonly performed procedure especially in type 1 diabetic foot complications [3, 4, 5].

Amit Jain's grading system for debridement is the world's first focussed grading system for diabetic lower limb problem [6]. This classification divides debridement in a group having 4 grades and subgroups that describes the extent and repetition of debridement [6]. In Jain et al series [3], grade 2 debridement was the most common debridement done in diabetic lower limb followed by grade 3. This article describes a small change in the grading system to form a new Amit Jain's modified grading for debridement [Table 1].

TABLE

GRADING OF DEBRIDEMENT [G]	OF	Earlier version	Modified version
GRADE DEBRIDEMENT	1	G1	G1
GRADE DEBRIDEMENT	2	G2	G2
GRADE DEBRIDEMENT	3	G3	G3
GRADE DEBRIDEMENT	4	G4	G4
EXTENT OF DEBRIDEMENT [E]			
ONLY 1 SITE [FOOT/ LEG/ THIGH]		E-O	E1
2 SITES [FOOT+ LEG OR LEG+ THIGH]		E-A	E2
3 SITES [FOOT+LEG+THIGH]		E-B	E3
REPEAT DEBRIDEMENTS [R]			
DEBRIDED ONCE [NOT REPEATED]		R0	R0
REPEATED ONCE		R1	R1
REPEATED TWICE		R2	R2
REPEATED THRICE		R3	R3
REPEATED		R.....	R.....

Table 1 showing the Amit Jain's grading for debridement with its new modification

THE NEW AMIT JAIN'S MODIFIED GRADING OF DEBRIDEMENT

The author has done a small modification of his debridement grading system. In this modification, the Extent [E] subgroup which was subgraded as O, A and B is instead changed to as 1, 2 and 3. That is if the extent of the debridement is confined to one part then instead of 'O' it is replaced as '1', if debridement extends to two parts [foot and leg or leg and thigh] then 'A' is replaced by '2' and if it involves three parts, then extent 'B' is replaced by '3'. The rest remain same without any changes [Figure 1-3].



Figure 1 Of A Patients Status Post Debridement For Diabetic Foot Abscess. As Per Modified Grading System, His Grading Will Be G3e1r0. In Case The Patient Undergoes Another Debridement For Effective Wound Healing, Then It Becomes R1. If Muscles Are Debrided, Then Grade 3 [G3] Is Upgraded To Grade 4 [G4].



Figure 2 Showing A Healing Ulcer Over Foot And Leg. His Final Grading For Debridement Was G3e2r1.



Figure 3 Showing A Healing Ulcer Over Anterior Aspect Of The Leg. He Had Undergone G4e1r1 Debridement. Grade 4 Debridement Because A Part Of Muscle Was Debrided. Now There Is Necrotic Skin With Slough. Patient Underwent One More Debridement And His Grade Became G4e1r2.

This modification of alphabet to numbers would help in a better way to grade completely and uniformly without confusion for other specialist [Figure 1]. Since the author is first to do study on debridement using the earlier grading and currently there are not many studies, the researcher can still consider this new grading either as Amit Jain's grading system for debridement or they can write it as Amit Jain's grading [modified] system for debridement. In this modification, the grading group and repeated group numbering is maintained. When one enters the number of the repeated debridement like R1 or R2 or R3 etc, it is the one done in Operation theatre especially under anaesthesia. Routine removal of biofilms or scraping or removing small superficial slough in ward should not be included in it and upgraded.

CONCLUSION

Amit Jain's grading system for debridement is the first grading system for diabetic limb problems in the world. It is simple, easy to use, and practical and standardizes the approach towards debridement which is an underestimated and undervalued surgical procedure. A small

modification from alphabet to number has been done for this novel grading system for debridement thereby equating it to oncological TNM staging of cancers.

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