Clinical experience of Taurolidine use in 38 complex clinical cases including salvage therapy

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Introduction

Successful outcome with Taurolidine citrate as medical device finds its place in several case series and reports. Its role in prevention of Catheter Related Blood Stream Infections (CR-BSI) is also well documented.
In very complex clinical situations its role is not clear. Having very good property of inhibiting bacterial colony growth, it can be used to salvage long term catheters, prosthetic grafts and reduce colonization in chronic non healing wounds. Literature search has shown Taurolidine had been used in the following clinical situations.

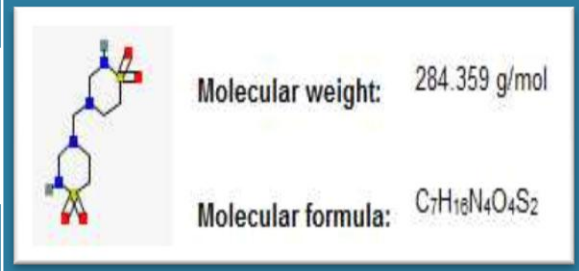
Literature search through PUBMED
(from 1979 -2012),both in vivo and in vitro studies. references at end)

Empyema thoraces	Bronchiectasis
Peritonitis	Dental mouth washes
Hickman lines	Anticancer properties
Dialysis lines	Rheumatoid arthritis

Purpose of our study was to see whether the use of Taurolidine is beneficial in complex situations where bacterial colonization is difficult to manage.

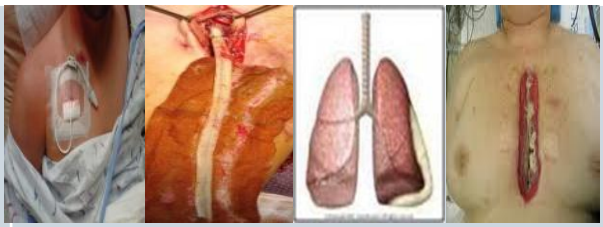
Taurolidine (Taurine derivative)

Taurolidine [bis(1,1-dioxoperhydro-1,2,4-thiadiazinyl-4)-methane)], has got antibacterial ant-proliferative, anti-inflammatory properties. Its immune modulatory action is reported to be mediated with priming and activation of macrophages and polymorphonuclear leukocytes. Taurolidine acts by disrupting the cell wall, diminishing bacterial adherence, and neutralizing toxins.



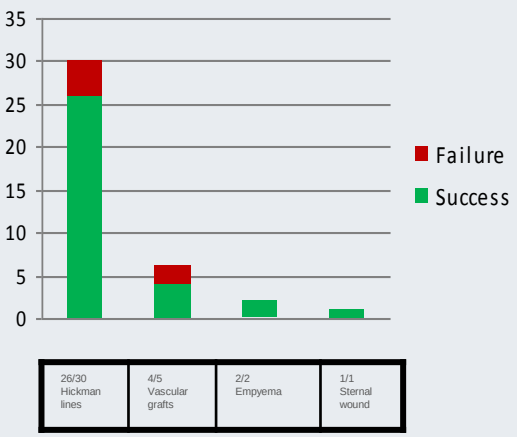
Methods

Very complex clinical cases (recurrent bacteremia, difficult venous access- where line salvaging is important, Lower limb infected vascular bypasses where patient is systemically stable and limb not threatened, chronic colonized wounds etc.) from July 2007 till date were studied with application of Taurolidine. Its use outside this indication as a salvage therapy was agreed through a treating consultant -and consultant microbiologist discussion, after obtaining patient consent. Clinical improvement and successful clearance in regular check cultures done weekly was used to define successful outcome



30/38	5/38	2/38	1/38
7- Haematology 9- Gen. Surgery 7- CT surgery 5 – Oncology 2- Vascular	Patent Infected infra inguinal bypass graft, with no systemic manifestations.	Recurrent pleural infections	Deep dehisced sternal wound, used in conjunction with VAC therapy

Results



Conclusions

1. Taurolidine is licensed for flushing Tunneled catheters
2. In complex clinical cases long term tunneled lines and prosthetic grafts can be salvaged by use of Taurolidine
2. Successful use of Taurolidine use beyond its licensed indications call for further Randomized control studies

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