

“Applications of Bismuth Iodoform Paraffin Paste in Maxillofacial Surgery - Case Series”

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ABSTRACT

Bismuth iodoform paraffin paste (BIPP) pack can be used as packing material to achieve hemostasis in cases of bleeding in the head and neck region. It is more often found in the armamentarium of the otolaryngologist to manage cases of bleeding from the ear and nose. It is very commonly used for the arrest of post operative bleeding following tonsillectomies. Pharmacologically BIPP is a bright yellow non-sterile paste of bismuth subnitrate 250mg/g, iodoform 500mg/g and liquid and white soft paraffin. It is used topically for its mild antiseptic action. Bismuth compounds have been used topically for its astringent properties. This paper presents two cases of excessive uncontrollable bleeding in the maxillofacial region which were managed with the help of BIPP to arrest bleeding and provide uneventful wound healing respectively.

Keywords: Bismuth; iodoform; paraffin; hemorrhage; wound healing.

INTRODUCTION

Bismuth iodoform paraffin paste (BIPP) pack can be used as packing material to achieve hemostasis in cases of bleeding in the head and neck region. It is more often found in the armamentarium of an otolaryngologist to manage cases of bleeding from the ear and the nose.¹ BIPP Pack is also commonly used to arrest post operative bleeding following tonsillectomies.² Pharmacologically BIPP is a bright yellow non sterile paste of bismuth subnitrate 250mg/g, iodoform 500mg/g and liquid and white soft paraffin. It is used topically for its mild antiseptic and astringent properties.³ Two cases of management of excessive uncontrollable bleeding in the Maxillofacial region with the help of BIPP pack have been discussed. To add some more

Case1: A boy aged 15 years who reported with reduced mouth opening since four years was diagnosed to have bilateral temporomandibular joint ankylosis. Following the resection of ankylotic mass, ipsilateral coronoidectomy was done to improve the mouth opening, unfortunately heavy bleeding was encountered from the right preauricular region which was difficult to control with conventional means of pressure packing with gauze, botrocot soaked gelfoam, and ligation techniques(Figure 1).



Fig 1: Bleeding in the right preauricular region following the coronoidectomy

It was suspected that the origin of the bleed was from an undetected branch of internal maxillary artery and hence it was very difficult to identify the location of bleed. After all possible means to arrest the bleeding were unsuccessful; it was decided to use a BIPP pack to control the excessive bleeding. The incision was then closed in layers using 3'0 polyglactin and 5'0 polypropylene (Figure 2).



Fig 2: Closure of the flap with BIPP pack in situ

The BIPP pack was removed in the outpatient department after 15 days. The wound was inspected to be clean without any fresh ooze. Post operative healing had been uneventful on follow up.

Case 2: A 40 years old male patient reported to the emergency department with bullet injury on the right side of his face causing comminuted midface fracture and loss of vision. Under general anesthesia, enucleation of the right eye along with retrieval of the bullet splinters and debridement was planned. During the surgical manipulation to retrieve the splinters in the right zygomatic region, profuse uncontrolled bleeding from the branch of internal maxillary artery was encountered. The bleeding vessel was identified and ligated to control the bleed but because of the shattered zygoma a large dead space was created which collected a lot of blood. This defect was then packed with BIPP and closure was done (Figure 3).



Fig 3: BIPP pack tucked inside the flap to take care of dead space

The patient was kept on a periodic review. A month later the pack was removed. The wound size had decreased considerably with evidence of satisfactory healing (Figure 4).



Fig 4: Post operative healing after one month when the pack was removed

DISCUSSION

BIPP pack has been commonly used by otolaryngologists for management of epistaxis and bleeding after tonsillectomies, however it can also be used for managing dead space and to achieve satisfactory healing apart from achieving hemostasis in inaccessible areas of the oral and maxillofacial region.

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- [3]. ORION LABORATORIES PTY LTD. Review July 2012. Composition. B.I.P.P. Gauze is ribbon gauze impregnated with a bright yellow paste of bismuth ...www.orion.net.au/products/pdf/bip03051_ug.pdf