

GIANT EVENTRATIONS: USE OF PNEUMOPERITONEUM(PPN)
PLUS BOTULINUM TOXIN, VALID OPTION



RICAU MUSI JORGE ¹, **ALVAREZ JOSE** ², **ROCHA GERMAN** ², **BELAUSTEGUI JOAQUIN** ²
1 Head General Surgery - 2 General surgeon

DEPARTMENT OF GENERAL SURGERY – IRASTORZA HOSPITAL CURUZU CUATIA, CORRIENTES, ARGENTINA
DEPARTMENT OF GENERAL SURGERY- CURUZU SRL HEALTH CENTER, CTES , ARGENTINA

INTRODUCTION:

Giant Eventrations with loss of domicile are always a difficulty for surgical resolutions. This pathology should be planned thorough prior to surgery.
The combination of PPN (Preoperative Pneumoperitoneum) plus Botulinum Toxin A is a valid option in our experience.

MATERIAL AND METHOD:

7 cases of Giant Eventrations with Loss of domicile were analyzed in 2 Health Centers: Surgery Service of the Irastorza Hospital and Curuzu Clinic, Argentina.
Scam CT and Spirometry studies were performed on all included patients, in addition to routine presurgical studies. The hernia and abdominal cavity volumes were evaluated. In all cases, Botulinum Toxin A (Botox) 200 IU diluted was applied. It was diluted in 10 cc of physiological solution and 1 cc was applied to each side point (5 on each side – fig 1) previously marked. 3 medial and 2 lateral, divided by the midaxillary line, 30 days prior to surgery. Then Pneumoperitoneum was performed 15 days after the application of the TBA, for this peritoneal catheter is placed at Palmer's point, and approximately 600 – 1200 cc of air is introduced per session in daily sessions with a total of 14 – 16 liters for 15 days on average, both practices were performed on an outpatient basis.

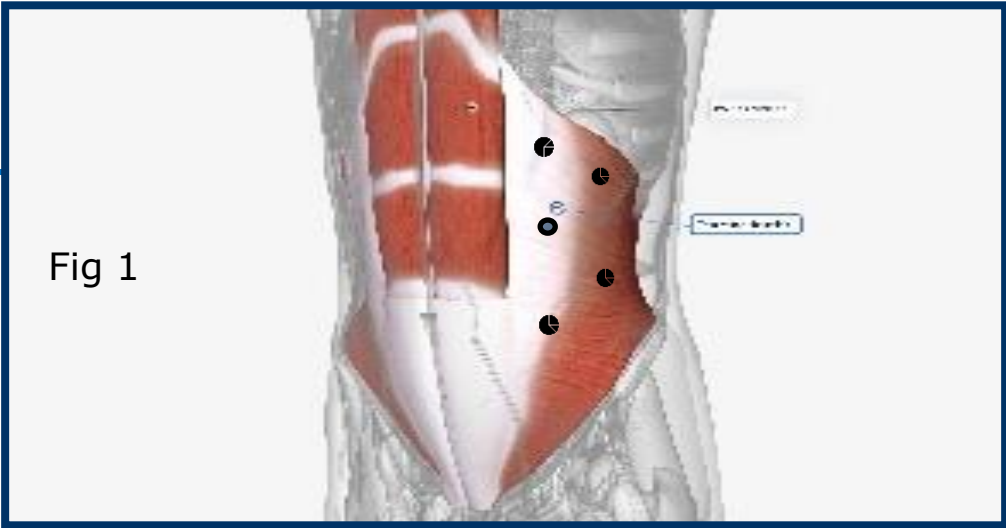


Fig 1

DISCUSSION:

Giant Eventrations with loss of address require adequate and meticulous planning for their surgical treatment. Its treatment, without prior preparation, confronts us with possible complications associated with failures in respiratory mechanics, alterations in intestinal irrigation and the possible appearance of early recurrences secondary to abdominal hypertension after the return of the eventrogenic content to the abdominal cavity.
In Giant Eventrations, different treatment alternatives can be used, including discharge incisions, component separation techniques, all of them with high morbidity. It has been shown that the application of preoperative TBA achieves an effective paralysis of the lateral muscles of the abdominal wall by approximately 20%, in addition to the preoperative pneumoperitoneum has greatly improved tension-free closure and therefore postoperative morbidity.
The dose of TBA used and the way in which PPN is performed varies according to the surgical team to perform it, size of the eventration and previous morbidity.
In our experience, the dose used in all cases was 200 IU, and the PPN ranged between 600 and 1200 according to the size of the eventration. There were no complications in any case when applying TBA or when performing PPN. The results in our statistics of the combined preoperative use were very good.

RESULTS:

The combined use of TBA and PPN has given us very good results.
The average age of patients operated on (n=55). Of the 7 cases, 4 were women and 3 men.
In all cases, polypropylene mesh was also used, with an average surgery time of 90 minutes.
Plastic repair could be performed without intraoperative problems, drains were left in all patients. The average postoperative hospitalization time was 3 days.
POP follow-up was performed up to 30 days, with seroma in 6 cases and skin dehiscence in 1 case. No other complications were observed, in none of them there were respiratory problems.

CONCLUSION:

The multimodal management of Giant Eventrations with loss of address allows patients to arrive at surgery in the best possible surgical conditions.
TC scam and spirometry are necessary prior to surgery for evaluation and condition of the patient and determination of volumes. The combined use of Botulinum Toxin A (TBA) plus Preoperative Pneumoperitoneum (PPN) and added in some cases discharge incisions and the use of mesh increase the percentage of tension-free midline restoration, minimizing respiratory complications and the risk of postoperative intra-abdominal hypertension.
This allows the reduction of complications that can be serious.

REFERENCES:

1- S. Timmer, J.J. –A systematic review and meta análisis of technical aspects and clinical outcomes of botulinum toxin prior to abdominal wall reconstruction, Springer,13 (2021).
2- Ibarra-Hurtado TR. Botulinum Toxin A: its importance in patients with large abdominal hernias. Rev Hispanoam Hernia 2(4) : 131-2 (2014).
3- Hernandez Lopez A., Villalobos Rubalcava E., Botulinum toxin infiltration in the preoperative preparation of hernias with 10 cm defects.
4- Bueno Lledó J,Torregrosa Gallud A., Jimenez Rosellon R., Progressive pneumoperitoneum and botulinum toxin tipo A in the surgical preparation of hernia with los of residence. Cir Andal. 2018; 29 (2) : 203-206-