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External hemorrhoidal thrombosis in the elderly patients: conservative and surgical management

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Abstract

BACKGROUND: External hemorrhoidal thrombosis is a common disease with an acute anal pain as the major symptom. It is astonishing the lack of studies which investigates the most effective treatment and there are not guidelines. Furthermore nobody has evaluated this peculiar condition in elderly people.

METHODS*:* We have considered 87 patients aged >75 years who were visited and treated for this condition in our clinic, dividing them in three groups according the curative option chosen together with them after anamnesis and an interview: a conservative medical treatment (Group A), an immediate incision and evacuation of the thrombus (Group B) and the excision of hemorrhoid with the thrombus, with hemorrhoidectomy technique (Group C). The mean follow-up was 12,3 months. We analyzed immediate pain relief and time of remission of symptoms, bleeding, recurrences and major complications.

RESULTS*:* The Group A presented a remission of symptoms in 11,8 days, Group B in 1,58 ad Group C in 7,8 days. The recurrence rate was very similar for the first two options (19,4% and 16,1 %) and lower in the excision group (no recurrence during follow-up). Bleeding is the common adverse event observed with a high frequency in the immediate incision and evacuation of thrombus, less common in hemorrhoidectomy, that did not present major complication. Surgical option is often refused by elderly patient evaluating comorbidities in the fear of adverse events.

CONCLUSIONS: The surgical treatment for EHT in elderly is safe and effective, but not the most common choice for fear of complications. Medical treatment or immediate incision of thrombus can be preferred and well accepted by elderly even if followed by a higher rate of recurrences.

KEYWORDS: hemorrhoids; thrombosis; external hemorrhoidal thrombosis; surgical treatment.

Background

External hemorrhoidal thrombosis (EHT) is a painful and debilitating complication of hemorrhoids, and in some cases can represent a true anorectal emergency[1]. It occurs when there is an acute venous engorgement with the making of an intravascular thrombus in the external hemorrhoidal vessels [2]; symptoms are swelling, lump and severe persistent pain. Although it is not a life-threatening condition, it can be a challenging problem in diagnosis and in management, especially in elderly. The choice in these cases needs to be weighted with the presence of comorbidities and nowadays there are no guidelines. In fact while the prevalence of hemorrhoidal disease can be estimated between 4,4 and 36,4 % [3], there is no mention of prevalence of external hemorrhoidal thrombosis (EHT), even if it is known as a condition more common in young and male patients [4], with the constipation as the main precipitating factor [5-6].

Authors performed a retrospective study to evaluate the management of 87 elderly patients treated for external hemorrhoidal thrombosis from January 2013 to December 2015 at the Department of Surgical Sciences , “Sapienza” University of Rome. The aim is to evaluate the differences between conservative and surgical treatment in terms of pain relief, bleeding, intervals and rates of recurrence and to compare the results with the studies that considered the EHT treatment without a stratification for age.

Methods

From January 2012 to December 2015 87 patients, both gender, aged > 75years (mean age 80,9 years), with acute external hemorrhoids, were visited in our surgical clinic. All the patients were investigated about symptoms, comorbidity, allergies and use of anticoagulants or other medicines. The choice for the treatment was between three options: a conservative medical treatment in Group A (36 patients), the immediate evacuation of the thrombosis with incision in Group B (31 patients) or excision of hemorrhoids/hemorrhoidectomy in Group C (20 patients). After an interview each patient could chose the most suitable option. The mean follow-up was 12,5 months. We investigated the instantaneous pain relief, bleeding, recurrences, major complications.

In the Group A the conservative medical treatment consists in stool softeners, oral and topical analgesics, a first week of enoxaparin, followed by a flavonoids mixture (diosmin, hesperidin) for one month.

In the Group B after local anesthesia it was performed a little radial incision and the removal of all the visible clot and so the evacuation of thrombosis.

In the Group C it was performed Milligan Morgan's hemorrhoidectomy of the single pile with the thrombosis in the 75% of case, of more piles in the 25% of cases and it was use Ligasure to minimize bleeding and operative time

Results

In the three groups there were no differences in age, race and gender. In all the patients major symptom was anal pain, then swelling and lump. The percentage of use of anticoagulants was major in group A (15/36: 41,7%) than in Group B (10/31: 32,2%) and Group C (7/20: 35%) and it can be considered the only external factor that could have had an influence in the choice between options.

The Group A presented a total remission of pain and swelling after a mean period of 11,8 days with a progressive decrease of VAS score, in the Group B there was an immediate pain relief, with the subsistence of pain only for a mean period of 2,6 days and the regression of symptoms like swelling in 4,6 days . Group C presented a substantial persistence of pain with the subsistence of initial VAS score in the first 5,8 days after operation, with the total remission after 7,3 days. Bleeding of course occurred in 5/31(16%) patients in group B with an average duration of 1,4 days, where the little incision performed to evacuate the clot was surely the main risk factor. Only one patient in Group C presented a self-limited bleeding and no one in the Group A. The rate of recurrences, with a mean follow-up of 12,2 months, was very similar in the first two groups (Group A : 19, 4% vs Group B: 16,1%) and considered together minor lower than reported in literature (22%)(5), maybe connected with the minor prevalence in elderly patients of this condition. There was no recurrence in the Group C. The new EHT did not recur in the same position of the first hemorrhoidal thrombosis in about the 66,6 % of cases. The average interval to recurrence was 9,4 months in Group A and 10,8 months in Group B. During the follow-up we did not observe anal stenosis or other local morphological alterations due the procedure, only two patients of Group C presented soiling in the first three months after the surgery (Table 1). There was no major complication due to the different treatment. Five patients (3 Group A, 1 in Group B, 1 in Group C) died during the follow for their comorbidities.

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Discussion

In literature few studies deal with EHT, more generally it is considered the management of acute hemorrhoidal disease and rarely there are prospective data about the efficacy of the different treatment in EHT. Furthermore there is not an analysis of this condition and the possible curative options in very elderly [7].

The two main choices are the conservative treatment and the surgical one, and the success rate was identified in the regression of symptoms but above all in the lack of recurrences. Greenspon *et Al.* in their retrospective study with 231 patients reported a significant difference in recurrence, very higher in the conservative group (25,4 percent vs 6,3 percent; P<0.0001) [8]. Differently from us they have considered in the surgical management both excision or more rarely incision of the thrombus- containing vessel, considering the latter a practice abandoned for the high recurrence rate. On the contrary Cavcic *et Al.* considered like us three attitudes: excision, incision or conservative treatment, with a rate of success very similar for the last two, making them the same in comparison with the most effective hemorrhoidectomy [9].

In all the studies it is well calculated the time of resolution of pain by postoperative day 4 and a mean duration of 24 days for resolution of symptoms with conservative management. Chen *et Al.* in their review confirm the superiority of surgical treatment both for symptom control and prevention of recurrences and that incision is inferior to excision in the efficacy, even if two of the four studies considered are retrospective, and the data about resolution of symptoms are very different from the authors experience and so very debated [10].

It is not surprising because of the poorness of data about this condition and its management that we didn't find a selective analysis of the different efficacy of the two major treatments in elderly people. For example Mirhaidari *et Al.* review the correct and most favorable treatment of EHT during pregnancy, analyzing the feasibility of hemorrhoidal excision before delivery, with complications and rate of recurrences even though this option is discouraged for the delicate

conditions of pregnant women and for fear of complications [11]. But we did not find the same attention for elderly people, in which the choice of surgical option instead of the conservative one can be debated. Geriatric patients suffer a disproportionate amount of complications from any kind of hospitalization, including readmissions [12] and the independent risk factors are age, ASA Class > 2, operation time, any complication and deep vein thrombosis [13]. Comorbidities and use of anticoagulant therapy represent an important element in delaying the "definitive" surgical procedure, according to the questionnaire compiled by patients during the follow-up [14-16].

This study, despite retrospective, has the target to evaluate the most efficient approach to EHT in the people aged > 75 years, where the life expectancy can decrease the importance of no recurrences as the crucial factor to the determine the success of the procedure in comparison with the immediate pain relief and the resolution of other symptoms. Our recurrence rate in all the procedures was very similar of that of literature, and incision can be likened to conservative management. Hemorrhoidectomy is the more effective treatment, but not superior in immediate in pain relief [7,13]. Moreover many patients, as reveled in the questionnaire, did not choose the surgical option in consideration of all their comorbidities and therapies, despite the reassurances by the surgical team. Once the Milligan Morgan's technique has been chosen there are not been major complications.

Conclusion

The surgical treatment for EHT is the most effective and feasible option and this doesn't change in elderly patients. In this evaluation it is considered the success linked to a lower recurrence rate. According to us there are other important factors in elderly patient to consider: the immediate pain relief and the fear of complications during a surgical operation. This apprehension often discourage patients in choosing hemorrhoidectomy for EHT. Practice like incision allows a better immediate pain control despite the high recurrence rate, while conservative management is more acceptable for the majority of patients, scared by a true surgical procedure and its complications.

Abbreviation used: EHT external hemorrhoidal thrombosis

Declaration:

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Availability of a data and materials

The datasets used and/or analysed during the current study available from the corresponding author on reasonable request.

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CE: designed the study, co-collected data, wrote the paper, made literature research, gave final approval of the version to be published.

DM: co-wrote the paper and co-made literature research, gave final approval of the version to be published.

PA: collected and interpreted data, gave final approval of the version to be published.

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TABLE

Table 1- Treatment results in the three groups

Factor	Conservative Group A (N=36)	Incision Group B (N=31)	Excision Group C (N=20)
Time of remission of symptoms (days)	11,8	4,6	7,3
Bleeding (%)	0	16%	5%
Recurrences (%)	19,4%	16,1%	0
Time to recurrence (months)	9,4	10,8	-