

Appendicectomy deferred to the next day ;The patient's opinion

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Abstract

Objective: The aim of this study is to know the opinion of the patients whom had been diagnosed as acute appendicitis and their operations were deferred to the next morning instead of being done at the same night of their admission.

Patients and Methods: 102 consecutive patients admitted to the AL Hilla teaching general hospital from the period of Oct/31/2008 to Feb/28/2009 diagnosed as acute appendicitis were admitted from the causality department .Their operations were deferred to the next day for different reasons. Observations overnight were done and then postoperatively a Questionnaire were given to the patients to know their opinion regarding the deferred operation and their overnight complaining.

Results: 102 patients were studied, their median age 23 years (10 -58 years); 48 males, 54 females. The majority of these patients (48) were presented between 10-12pm.

70(68.6 %) patients remembered a reason for deferred operation and the remaining not remembering being given an explanation.

66 (64.7 %) of the patients poorly slept preoperatively, mainly due to the pain and ward noise. Operation on the same night as their admission was the preferred option in 82(80.4%) patients. 67(65.6) patients would have preferred the admitting surgeon to perform their operation; 18(17.6%) expressed no preference and 17(16.6%) patients preferred a 'new' surgeon the following day. Of the 102 patients, 13(12.7%) patients did not know who had performed their operation.

Conclusion: Most patients would prefer not to have their procedure delayed, In spite of being told why their operation was delayed. Major determinant of patient opinion were lack of sleep pre-operatively. Few patients asked for a 'new' surgeon to perform their operation. There is no system arranges the work in our country for cases of acute appendicitis which presented late at night so we need to improve our surgical practice by " Implementation of a guideline to avoid out-of-hours operation done by a junior doctors'.

الخلاصة

الهدف من هذه الدراسة هو معرفة رأي المرضى الذين تم تشخيصهم بالتهاب الزائدة الدودية الحاد، وتم أرجاء عملياتهم إلى صباح اليوم التالي لأسباب مختلفة بدلا من القيام بها في نفس الليلة وذلك عن طريق استبيان أعطي للمرضى صباح اليوم التالي لمعرفة رأيهم بشأن إجراء العملية. 102 مريضا دخلوا مستشفى الحلة التعليمي للفترة من 2008/10/31 ولغاية 2009/02/28 تم تشخيصهم بالتهاب الزائدة الدودية الحاد

أرجئت عملياتهم إلى اليوم التالي ، متوسط العمر كان 23 عاما (10 - 58 سنة) ، 48 ذكور و 54 إناث. 70 (68.6 %) من المرضى تذكر سببا لإرجاء العملية والباقي لم يتذكر إعطاء تفسير لذلك التأجيل. 66 (64.7 %) من المرضى لم يستطع النوم ليلة التأجيل بسبب الألم والضوضاء في الردهة وختاما معظم المرضى يفضلون عدم تأخير إجراء لعملية لهم ، على الرغم من إبلاغهم عن سبب تأجيلها. المحددات الرئيسية للمريض هو قلة النوم قبل العملية.

لا يوجد نظام يرتب العمل في بلدنا لحالات التهاب الزائدة الدودية الحادة التي قدمت في وقت متأخر من الليل وبذلك فإننا نحتاج إلى تحسين الممارسة الجراحية وتنفيذ موجز " لنهج " لتجنب الأخطاء للأطباء المبتدئين خارج نطاق ساعات العمل.

Introduction

Acute appendicitis is the commonest cause of acute abdomen and it is the second most common cause (28%) of acute abdominal pain after {non specific abdominal pain (34%) that necessitate admission to the surgical ward⁽¹⁾

Management of appendicitis was described by the early surgeons as they understood the symptomatology of appendicitis and they realized that the early operation could be the magic outcome instead of catastrophic results if any delaying occur.⁽²⁾ Its relatively safe procedure with a mortality for non perforated appendix of 0.8 per 1000.⁽³⁾

One of the most important changes that marked the last few years has been the highlighting on the potential negative impact of prolonged work hours for residents.⁽⁴⁾ Several studies have shown the negative effects of sleep deprivation on clinical performance,⁽⁵⁾ mood ,and cognitive abilities⁽⁶⁾ These changes suggest the need to limit operations and procedures performed during the night hours to absolute emergencies that cannot be safely delayed until the morning hours ,when a well-rested surgeon and surgical team are available

Other studies on the effects of delaying an Appendicectomy for acute appendicitis like Surana et al. ⁽⁷⁾ ,They found no statistical difference in the rate of complications between children who underwent appendectomies within 6 hours of diagnosis and those who underwent appendectomies between 6 and 18 hours of diagnosis .A similar study by Yardeni et al. on the effects of delaying Appendicectomies by 6 to 24 hours in children showed no significant increase in the rate of perforation, operative time, or complications when compared with children who underwent the Appendicectomies within 6 hours of their

presentation. ⁸Furthermore ,some studies suggest that the rate of perforation is due to a delay in patient presentation rather than to a delay in treatment ^(9, 10, 11)

In UK, The national confidential inquiry into preoperative Death {NCEPOD} showed that operation performed out of the hours were associated with increased morbidity and mortality. The out of hours cases were defined as those performed between 6:00Pm and 7:59Am on weekdays or any time on public holidays.⁽¹²⁾

As a result many surgical operations were deferred to the day time hours .In this study ,we reviewed the patients' opinions regarding the deferred Appendicectomy and to draw attention to the patients events and what suffering during the waiting time for surgery by asking the patients certain preformed questioner after they underwent their surgery next morning.

Patients and Methods

{102} patients in whom a non complicated acute appendicitis was diagnosed after they were admitted to the Hilla general teaching hospital after 6:00pm. Diagnosis and decision to operate were confirmed by the senior on call. Those patients underwent a delayed surgery next morning instead of being at same admission night. The admitting surgeon explained the reasons for having the operation the next day. Each patient was prescribed analgesia regularly (paracetamol 1g qds, supplemented by a non-steroidal analgesic, cefotaxime 1000mg twice daily , metronidazole 500mg three times daily and Intravenous fluids were started. Appendicectomy was performed the next day by the same surgical team. On the first post-operative day all patients included in the study were asked to complete a questionnaire.

The patient opinion to a deferring appendicectomy			
Ag		Date	-/-/
Gender	male	Female	
Patient acceptance to participate in the study		Yes	No
Time of presentation: 6:00 pm-10:00			
10:00 pm -12:00			
After mid night			
Do you know why your operation was deferred?		Yes	No
Did you sleep well before the operation?		Yes	No
If you don't sleep, what is the cause?	Because the pain		
	The ward is so noisy		
	Other cause		
When would you have preferred your operation?			
	Late at night –the same evening		
	Early the following morning		
Do you know who did the operation?		Yes	No
Did you prefer the operation to be carried out by other surgeon?	Yes		No
Why?			

Results

There are (102) consecutive patients with non complicated acute appendicitis where admitted to The Hilla general teaching hospital after 6:00 PM. (48) were Males and (54) were females .The median age was (23) range from 10 to 58 years .Table 1 shows the age distribution of non complicated appendicitis. No patient refused to participate in the study. All patients were given the explanation for their deferred operation. Table 2 shows time of presentation of those patients diagnosed as acute appendicitis and postponed to the next morning. 82(80.4%) patients preferred early operation at late night and the remaining (19.6%) patients preferred the delayed operation and slept wells.

In the questionnaire 66 (64.7%) of patients can't sleep at night and Table 3 shows the cause for that as they said.

67(65.6%) patients who would have preferred the original surgeon to have carried out the operation, felt that they had developed an empathy with that surgeon

and he knew their cases better while ,17(16.6%) patients expressed a preference for their operation to be performed by a 'new' surgeon the following day because they blame the surgeon who postpone them to the next morning and for that they couldn't sleep because of the pain and anxiety state and thinking of the operation and the complication that might occurred because of the deferring the operation to the next morning,18(17.6%) patients who expressed no preference either way stated that they were glad to have the procedure carried out by an expert surgeon.

Although all patients were given a standard explanation for their operation why being delayed, only 70 (68.6 %) patients were able to remember the exact reasons for this and 32(31.4%) patients could not remember being given any explanation.

13(12.7%) patients did not know who had performed their operation.

2(1.96 %) patients complained of complication sequel of deferred surgery.

Table 1. Age Distribution of non complicated appendicitis patients (n=102).

sex	9-19	20-29	30-39	40-49	50-59	Total
Male	9	18	9	8	4	48
Female	13	21	7	6	7	54
Total	22	39	16	14	11	102
Percentage	21.6%	38.2%	15.6%	13.8%	10.8%	100%

Table 2. Time of presentation of patients diagnosed as acute appendicitis and postponed to the next morning.

Time of presentation	6p.m-10p.m	10p.m- 12 midnight	12 midnight-morning	Total
No. of patients	20	48	34	102
Percentage	19.6%	47%	33.4%	100%

Table 3. In the questionnaire 66 (64.7%) of patients can't sleep at night and those arranged according to their said in the questionnaire .

The cause of not sleeping well	No of patients	Percentage
Abdominal pain	32	48.5%
Noisy ward	17	25.7%
Fear and thinking of operation next morning	10	15%
Change their bed	7	10.8%
Total	66	100%

Discussion

Although non-operative management with antibiotics of uncomplicated diverticulitis, salpingitis, and neonatal enterocolitis is now established, the non-operative management of appendicitis remains largely unexplored.⁽¹³⁾ It is generally believed that appendicitis progresses invariably from early inflammation to later gangrene and perforation, and that appendectomy is required for surgical control.^(2,11,14,15) As well as the negative impact of sleep deprivation on clinical performance suggest the value of limiting operations and procedures during the night and early morning hours to absolute emergencies remain areas of unfamiliar concern.^(4, 5, 6)

Majority of patients would have preferred an early operation rather than having a delay to the next day, most of them had slept poorly the night before operation, either because of poor pain control or the wards being too noisy and the anxiety state and thinking of the operation and the complication that might occurred because of the deferring their operations to the next morning which could be avoidable at time of diagnosis ,on the other hand ,All

patients whom preferred the delayed operation were slept wells, So pain control has an important role and analgesia needs to be titrated against the patient's pain. Patient controlled analgesia (PCA) might be an import institution under this circumstances.⁽¹⁶⁾ In addition to analgesia; sedation could be used to overcome the inevitable noise at night on a busy surgical ward.

There was no correlation between lack of sleep and surgeon preference, but there is a strong correlation between the time of presentation and the surgeon preference because we found that patients presented early between 6-10 pm and deferred to the next morning didn't prefer their operation to be done by the same surgeon. Also this study recommend not to postpone the operation to the next morning to save the time of the residents and the surgeon on the second day for more urgent cases especially in our country which faces a variety of trauma and terrorist attacks at any time.

Operating theaters number are limited so trying to do the appendicectomy operations at the same day of presentation would arrange a more space next morning and aids in focusing resources and operating room availability to life-

threatening emergencies. ^(17, 18)

One third of patients could not remember being given any explanation for deferred operation and more than 12% of patients did not know who had performed their operation, this indicate the bad communication skills between doctors and patients and the important of the consent that should be taken before any operation to decrease the complain of patients that might occur if their operation were deferred to the next morning.

Finally, if we want to defer the uncomplicated appendicectomy operations to the next morning, There should be a system arranges this deferral and that by implementing a guideline to avoid out-of-hours operating junior doctors and also at the same time protect doctors on call from patients complained of complication sequel of deferred surgery.

Conclusion

In spite of being told why their operation was delayed, most patients would prefer not to have their procedure delayed. Major determinant of patient opinion were lack of sleep and poor pain control pre-operatively. Improvement in these factors may result in a change in patient opinion. There should be a system arranges this deferral and that by an Implementation of a guideline to avoid out-of-hours operating junior doctors and also at the same time protect the doctors on call.

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