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## POST OP COMPARISON IN CASES OF COMPLETELY HEALED VS LEAKED APPENDICULAR STUMPS IN COVID PATIENTS

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### ABSTRACT

The main aim of this study was to compare appendicular stump leak or heal in post op covid patients.

#### Methods

A retrospective study was done in 100 patients presented with acute appendicitis after initiation of lockdown on March 24, 2020 in KIMS, Karad, which were compared demographically, clinically and surgically.

#### Conclusion

Post appendectomy chances of stump leak is rare. Most cases are stumps healed completely.

#### INTRODUCTION

The cases of appendicitis risen greatly in first half of this century. Up to 16% population undergoing appendectomy in last 30yrs, the cases has fallen drastically, such that lifetime risk of appendectomy is 10% in males and,

9% in females.

Acute appendicitis is commonly rare in infants and then increasingly more in childhood and early 20s [3]. The chances of appendicitis is same among men and women

before puberty. Acute appendicitis is the most for acute appendicitis has been surgery, however recent trends have changed with published guidelines regarding conservative antibiotic treatment for uncomplicated appendicitis.

Blocking of appendix lumen, gangrene, and perforation are common complications. Many cases appendix lumen patent in spite of mucosal inflammation and lymphoid hyperplasia. seasonal variation in the incidence is also observed with more cases occurring between May and August in north Europe.

Wound infection is common postoperative outcome in 5-10% of all patients. 8% of patients will develop postoperative intra-abdominal abscess. Leakage from stump occurs rarely. It follow if the encircling stitch has been put in deeply or if caecal wall was involved by oedema or inflammation.

## METHODS

This is a retrospective study conducted at Department of Surgery, KIMS, Karad. All the patients admitted with the diagnosis of AA were included in the study. Complications were also recorded. The categories included were Group A, with completely healed vestigial organ stumps and Group B, vestigial organ stump leaks, in covid time. Patient demography, clinical and intraoperative variables were determined.

89 cases show post op appendicular stump fully healed and 11 cases with stump leak.

## RESULTS

Leukocytosis was seen in 68 patients which could significant.

76/100 cases operated by open method in which 69 cases were fully healed and 7 cases with stump leak after 10 days.

11 cases operated by laparoscopic method in which 7 cases were fully healed and 4 cases with leaks

13 cases treated conservatively.

Table 1: A comparison among demography and clinical parameters of patients presenting with AA

Variable	Total (N = 100)	P value
Age (Years) ± SD	33.32±19.18	0.56
Sex	Men	58
	Women	42
Leukocytosis>10,000/mm <sup>3</sup>	68	0.002
Duration of pain (Hours)±SD	60±28.5	0.004
Delayed present(>72 hours)	11	0.62
Treatment Modality		
Conservative	13	0.001
Laparoscopic	11	
Open	76	
Mean time duration of surgery (min) ± SD	58.5±10.8	0.015
Mean Post-Operative Hospital Stay (days) ± SD	4.51±1.16	0.0001
Perforation	19	0.55
Perforation rate (%)	19.39%	

AA-Acute appendicitis, SD- standard deviation

## DISCUSSION

The study conducted at KIMS, Karad, included findings associated with COVID-19 times in comparison to non-COVID times. The reason for the difference is due to lockdown of private hospitals around the area [4, 5].

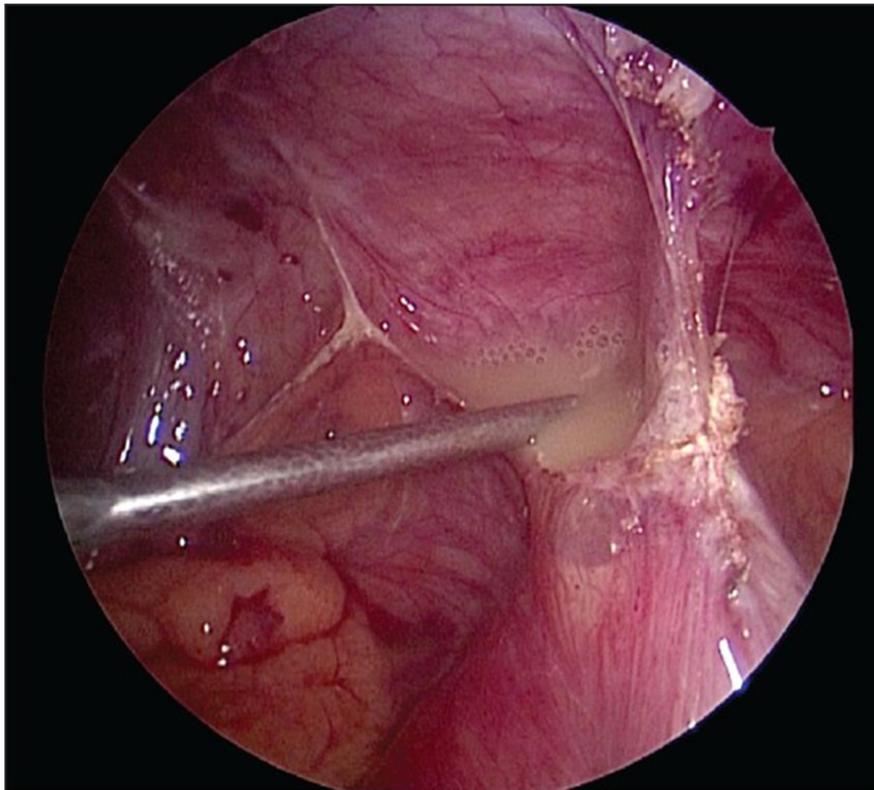
Patients were being force to stay home and take home based therapy with the fear of contracting virus. Appendicular

perforation worst complication of late presentation which increases mortality in comparison to non-complicated appendicitis.

Very less number of laparoscopic surgeries before the COVID-19 pandemic and almost no laparoscopic vestigial organ removal during lockdown was noticed in our clinical practice [6, 7]. The reason was patient negligence for laparoscopic procedure due to cost factor which overcome open method.

**Table 2: Stump healed vs leak in covid pts**

Surgery done	Appendicular stump healed	Stump leak
Open appendectomy	69	07
Lap appendectomy	7	4
Conservative management	13	0
total	89	11



**Stump leak post-appendectomy (Image courtesy: Journal of minimal access surgery; Stump appendicitis: A rare clinical entity by Abhinav Kumar, Anil Sharma, Rajesh Khulna, Van Dana, Manish Baikar, Pradeep K Chowder)**

The mean operative time duration increased due to extra safeties' taken by surgeons, limiting more chances of prick injuries. Operating while wearing PPE KITS with foggy glasses had reduced the visibility [8, 9]. Previous studies have shown duration of surgery is longer in laparoscopic group, however our experience suggests no significance regarding the technique of the surgery as both appendectomies took same duration.

Delayed presentation along with complications increases hospital stay, however, this was not proof in our study. This may be due to willingness of pts., to get discharged early, decreasing the risk of getting the virus from other patients. May be, this is reason for the rapid turnover of patients resulting in void of beds that may be required in times of crisis when surge in COVID cases were seen [10, 11].

## CONCLUSION

In COVID-19 time, number of cases, duration of presentation to clinic and difficult cases along with the perforation rate tend to increase in comparison to before the pandemic. Post appendectomy chances of stump leak is happened rarely. Most of the cases are completely healed stumps.

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