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RESEARCH ARTICLE

ROLE OF SERUM C-REACTIVE PROTEIN IN PRE OPERATIVE EVALUATION OF ACUTE APPENDICITIS INTRODUCTION

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ABSTRACT

Acute appendicitis is common abdominal surgical emergency. It is usually seen in teenagers. Acute appendicitis is diagnostic challenge for any surgeon, because many disease simulate acute appendicitis. Diagnostic difficulty with atypical findings resulted in unnecessary appendicectomy. Many studies shown that appendicitis associated with elevated C Reactive protein. When elevated C Reactive protein is associated with leucocytosis is more specific for appendicitis. Normal C Reactive protein associated with normal appendix.

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INTRODUCTION

Acute appendicitis is most common abdominal surgical emergency condition. Usually seen in 10 - 30 years of age. The diagnosis of appendicitis remains as a challenge even advances in imaging and investigations Acute appendicitis is notorious to simulate other conditions. This can be due to the wide range of positions. Correct diagnosis can reduce the inconvenience and suffering to the patients following surgery. Diagnostic difficulty in patients with atypical finding resulted in unnecessary appendicectomies. Appendicitis is associated with elevated C -reactive protein. Elevated C-reactive protein with leucocytosis and high neutrophil provide high predictive value in diagnosing acute appendicitis. Normal C-reactive protein associated with a normal appendix so we can defer surgery. This study involve pre operative estimation of serum CRP level with histopathological report

METERIALS AND METHODS

Surgical patients admitted with acute appendicitis undergone appendicectomy in surgical casuality. C -reactive protein estimated pre operatively and appendicitis confirmed by histopathological study.

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Observations

80 patients admitted in department of general surgery government medical college Kozhikode with signs and symptoms suggestive of acute appendicitis undergone appendicectomy

Sex distribution

	FREQUENCY	Percentage
Males	52	65
Females	28	35
Total	80	100

65% patients males and 35% females

Age of the patients vary from 13 years from 64 years. Maximum number of patients were in the age group of 21 to 30 years which account for 40 %

Age incidence

Age group	Frequency	Percentage
10 - 20 years	30	37.5
20 -30	32	40
31 - 40	13	16
41 -50	1	1.5
>50	4	5

Peroperative findigs	Frequency	Percentage
Minimally inflamed	30	37.5
Grossly inflamed	34	42.5
Perforated with local peritonitis	8	10
Gangrenous	2	2.5
Sloughed	6	7.5
Total	80	100

Per operative appearance was noted. 30 was minimally inflamed. 42 was grossly inflamed. Perforated appendix was 8.Gangrenous appendix was 2 and sloughed off appendix was 6

Percentage of cases based on Histopathological report

Histologically unremarkable	15	18.75
Acute appendicitis	55	68.75
Lymphoid hyperplasia	4	5
Acute appendicitis with perforation	3	3.75
Gangrenous	3	3.75
Total	80	100

Histopathological diagnosis was taken as final diagnosis.55 had appendicitis histologically. 15 histiologically unremarkable. 4 lymphoid hyperplasia. Acute appendicitis with perforation 3. Gangrenous appendicitis was 3

Mean C R P level and per operative findings

Per operative appearance	Mean C R P
Minimally inflamed	5.32
Grossly inflamed	37.25
Perforated with peritonitis	102.7
Gangrenous appendix	54.04
Sloughed off	44.32

From the chart C R P very high in appendicitis with perforation peritonitis 102.7 followed by gangrenous appendicitis 54.04.sloughed appendix 44.32 . Grossly inflamed 37.25. Minimally inflamed C R P is5.32

DISCUSSION

Appendicitis is the most common emergency condition and usually treated by appendicectomy. There is high rate of negative exploration for appendicitis. There is no diagnostic clinical feature for appendicitis. By ALVARADO scoring system you can diagnose appendicitis when it is more than 7. But false positivity more in females Ultrasonogram also not accurate always to diagnose appendicitis. C reactive protein is measured in the serum 6 -12 hours after onset of inflammatory process. Pre operative estimation of C R P is reliable investigation to diagnose appendicitis. This study shows positive value in suspected cases of appendicitis. Estimation of serum C Reactive protein estimation is simple, easily available, and cost effective. So it is emerging as a diagnostic tool for diagnosis of appendicitis. Being a n acute phase reactant C R P elevated in other conditions also. So specificity is low. But when increase in C R P is combined with other inflammatory markers like leucocytosis and neutrophilia and clinical examination provide high sensitivity and specificity. Serum CRP in appendicitis give false negative in some situations like early infective episodes. So CRP estimation not replaces clinical diagnosis, but useful adjunct in diagnosis of acute appendicitis. Serum CRP value should be interpreted in combination with clinical findings and leucocyte count. So for a skilled surgeon serum CRP value is complimentary for the dignosis of appendicitis

Conclusion

CRP level estimation is usefull test for the diagnosis of appendicitis especially counted with other diagnostic modalities. So whenever there is a doubt regarding diagnosis, this CRP estimation add on other modalities of diagnosis and we can come to a confirmatory diagnosis of appendicitis

REFERENCES

BabcockWW lumbar appendicitis and lumbar appendicectomy. *Surg.Gynecol.Obst*., 1946;82.414-6

Budd DC Fouty WJ. Familial retrocecal appendicitis, *Am J Surg*., 1977;133;670-1

Cave AJE Appendix vermifomis duplex J Anat 1936;70;283-202

Royster HA Appendix vermiformis duplex Appleton 1927

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