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Medical Science

AN UNCOMMON COMPLICATION OF TYPHOID FEVER

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ABSTRACT Typhoid fever(TF), caused by Salmonella enterica serovar Typhi, is the most common cause of enteric fever, presents classically with fever and other gastro-intestinal (G/I) symptoms. We report an interesting case of 29-year old Indian male who lives in rural area of northern India and presented with a 5 days long history of intermittent fever, chills and rigor. Earlier misdiagnosed as mumps fever in veiw of clinical presentation but lateron with proper workup it was found to be atypical presentation of typhoid fever.Responded well to intra-venous(I/v)antibiotics and get completely recovered from typhoid infection.

KEYWORDS : Epididymo-orchitis Typhoid fever,Salmonella typhi , Salmonella paratyphi,Atypical presentation, mumps infection,parotitis.

INTRODUCTION

Typhoid fever is a common public health problem especially among people of lower socio economic status . It is caused by Salmonella typhi and Salmonella paratyphi. The most common method of spread is by ingestion of contaminated food and water.(1,2) The ailment is quite common in developing countries like south-east Asia, China, Africa, south and central America (3). It has become of rare occurance in developed countries due to improvement in safe water supply and proper disposal of excreta. It is an acute systemic ailment caused by bacterial invasion of Peyer's patches in the ileum leading to bacteremia and multiplication of bacteria in the phagocytic cells of liver, spleen, and lymph nodes. Various organs can be involved in the course of typhoid fever resulting in wide spectrum of presentations from simple fever to involvement of multiple organs, leading to multi-organ failure. Most commonly its patient presents with fever, toxaemia and gastrointestinal disturbance in the first week and complications in the form of intestinal haemorrhage and intestinal perforation in the third week. Unusual presentations of typhoid fever include jaundice, abdominal lymphadenopathy,acalculous cholecystitis, splenic and liver abscess,myocarditis ,pneumonitis and rarely with Meningitis, Pancarditis/myocarditis , Orchitis, Osteomyelitis, Parotitis (4) . We report an interesting case of typhoid fever in a 29 year old male who was misdiagnosed as mumps infection in adult.

CASE REPORT

A 29 years old farmer presented to our out patient department(OPD) with complaint of fever with throat pain for last 3 days.His fever was intermitent and associated with bodyache.A clinical diagnosis of viral fever was made and patient was put on paracetamol 650 mg qid.After next 2 days patient again presented to OPD with incresed febrile episodes and swelling on bilateral(b/l)side of neck involving parotid area left more than right side. This patient was neither vaccinated nor suffered with mumps in past according to his mother. His routein investigatios for fever (CBC, peripheral smear for malarial parasite (M.P), Typhidot, Urine routine) was found to be normal, Hence In veiw of clinical presentation a provisional diagnosis of mumps viral infection was made and his blood sample for mumps IgMantibodies were sent to lab.He again presented to us after next 3 days , this time in emergency with severe left sided sucrotal and lower abdomen pain with increased b/l parotid swelling and high grade fever.Patient admitted this time in veiw of no clinical improvement and reevalation of diagnosis.Patient put on empirical antibiotic therpy(inj Ceftriaxon 2 gm I/v B.D) and antipyretic (Inj. Paracetamol 1 gm I/v tds) coverage done rest symptomatic medication continued. All routein investigations were repeted , his blood report for IgM Typhi Dot IgM Ab (ELISA) comes positive. For confirmation blood culture was sent. His ultrasound whole abdome and chest X-ray found to be normal.Doppler of b/l testicular vessels showed mildly sluggish flow .Meanwhile his mumps test comes negative.Hence after ruling out other allied viral infections EBV etc. a final diagnosis of complicated typhoid was made and inj Ceftriaxon was continued for 5 days.Later his blood culture report comes positive for salmonella typhi sensitive to ceftriaxon antibiotic.Being atypical presentation ,immunoc omp romised status was ruled out in same patient.He improved significantly while treatment and was discharged on 6th day with oral therapy of tab.cefexime 400 mg b.d for next five days.All routine investigations found to be normal before discharge.

TABLE 1

BLOOD & URINE PARAMETER S		BEFORE STARTING CEFTRIAXON THERAPY(DAY5 OF ONSET OF SYMPTOMS)	BEFORE STARTING CEFTRIAXON THERAPY(DAY 8 OF ONSET OF SYMPTOMS)	AFTER COMPLETION OF CEFTRIAXON THERAPY(DAY 13 OFONSET OF SYMPTOMS)
CBC	Hb.	13.2	14.5	13.9
	Hct.	34.6	39.4	35.7
	TLC	5700	3000	4200
	DLC	N69/L24/M2/E5	N82/L18/M1/E1	N72/L27/M1/E0
	P/C	2,89,000	3,79,000	2,52,000
LFT#	BILIRUBIN LEVELS	0.8(D),0.6(I)	1.2(D),1.6(I)	1.0(D),0.9(I)
	ENZYMES.	PT(67).OT(43)	PT(250).OT(273)	PT(90).OT(80)
KFT$	BLOOD UREA.	19	46	22
	Cr.	0.8	1.4	1
	SERUM SODIUM	139	146	132
	SERUM POTASSIUM	4.1	5	3.9
FEVER PANEL	Typhidot IgM	NEGATIVE	POSITIVE	NOT DONE
	P/S FOR MP	NEGATIVE	NEGATIVE	NOT DONE
	URINE R/M	NORMAL	NORMAL	NORMAL

	URINE CULTURE	NOT DONE	NEGATIVE	NOT DONE
	BLOOD CULTURE	NOT DONE	POSITIVE FOR SALMONELLA TYPHI	NOT DONE
MUMPS ANTIBODIES	IgM IgG	NOT DONE	NEGATIVE NEGATIVE	NOT DONE
EBV ANTIBODIES	VCA IgM VCA IgG	NOT DONE	NEGATIVE NEGATIVE	NOT DONE
ADENOVIRU S ANTIGEN	PCR	NOT DONE	NEGATIVE	NOT DONE
PARA INFLUENZA	PCR	NOT DONE	NEGATIVE	NOT DONE
MISCELLAN EOUS TEST	CHEST X-RAY	NOT DONE	NORMAL	NOT DONE
	USG WHOLE ABDOMEN	NOT DONE	NORMAL	NOT DONE
	B/L TESTICULAR ARTERY DOPPLER	NOT DONE	MILDLY SLUGGISH FLOW OF BLOOD.	NOT DONE

liver function test,$ kidney function test,

DISCUSSION

Typical presentation of typhoid fever has changed over the years. Atypical presentations can delay the clinical suspicion, diagnosis and treatment (5). Our patient had atypical presentation in the form of fever, b/l parotid enlargement and left sided epidydymo-orchitis. Because of clinical presentation earlier diagnosis of mumps was made but on repeated evaluation it was found to be atypical presentation of typhoid fever.Patient responded well to conventional typhoid fever therapy.

Liver involvement is quite common in typhoid fever ,which generally remains for short term and is self limiting afetr recovery of typhoid infection.(6) Incidence of intestinal haemorrhage, intestinal perforation and overall mortality is higher in jaundiced typhoid patients.(7) Prevalence of atypical presentation is high in MDRTF (Multi Drug ResistantTyphoid Fever).(8)

Parotid involvement in typhoid fever is generally found in HIV patients (9,10) but in an immunocompetent individual is a rare finding.Typhoid fever is also associated with abnormal liver function tests but b/l parotid enlarment with epididymo-orchitis is rare. .

CONCLUSION

Clinical presentations of typhoid fever vary from case to case. Fever with parotid enlargement and epidedymo-orchitis is generally seen in mumps infection , but uncommonly it is also seen in typhoid fever especially in immunocompromised individuals.we presented a rare case where patient was neither immuno compromised nor was infected with mumps virus. This case report is aimed to sensitize the physicians that typhoid infection can present with fever, parotid enlargement and epididymo-orchitis.

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