ORIGINAL RESEARCH PAPER

Volume-8 | Issue-3 | March-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

SUB ARACHNOID HEMORRHAGE IN A CHRONIC ITP CASE WITH NSAID USE

Paediatrics

Dr. Shaik k john mohammad Alisha Post Graduate Department Of Pediatrics Dr. PSIMS And RF, China Avutapalli, Gannavaram

Dr. Repudi chandrasekhara rao* Post Graduate Department Of Pediatrics Dr. PSIMS And RF, China Avutapalli, Gannavaram *Corresponding Author

Dr. Anurupa popuri Post Graduate Department Of Pediatrics Dr. PSIMS And RF, China Avutapalli, Gannavaram

ABSTRACT

Spontaneous intracranial haemorrhage (ICH) is a rare complication of chronic immune thrombocytopenic purpura (ITP) in children. We report a case with cITP who developed ICH. The latency between onset of ITP and ICH varied from 1-8 years. The patient was profoundly thrombocytopenic (platelet count of <10 x 109/l) at the time of their intracranial bleed. The presenting features and management are discussed. Cranial computed tomographic scan (CT scan) of brain showed subarachnoid haemorrhage along the falx and tentorium on right side. She was treated with intravenous immunoglobulin (IVIG), methylprednisolone and platelet support The patient survived, had complete neurological recovery. There was usage of NSAIDS before the onset of SAH in another hospital which may have contributed to the SAH in the child

KEYWORDS

chronic immune thrombocytopenic purpura (ITP), Spontaneous intracranial haemorrhage (ICH), Non steroidal anti inflammatory drugs(NSAIDS)

INTRODUCTION

Chronic immune thrombocytopenic purpura (ITP) is one of the risk factor for bleeding diathesis. Chronic immune thrombocytopenic purpura (ITP), defined as a platelet count of below 150 × 10^9/L persisting for more than 6 months from onset of illness, occurs in approximately 20% to 25% of children with acute-onset ITP[1]. Spontaneous intracranial haemorrhage (ICH) is a rare complication of chronic immune thrombocytopenic purpura (ITP) in children[2]. With NSAIDS usage Gastrointestinal ulceration and bleeding have been observed. Due to the inhibition of COX-1, the prostaglandin activity, which is responsible for maintaining the integrity of the gastric mucosa, is impaired

CASE REPORT

A 15 yrs old female child (DOB: 18/11/2002) with chronic ITP had Headache, neck pain, Not recognising people since 30 days, 4 days and 1 day respectively. Child was active and apparently normal 30 days ago. Present complaint of headache is mild in severity. Child feels pressure throughout the head. It is present when in school at around 3 pm usually. Relieved with rest after coming from school. On 15th day of illness (DOI) child was prescribed medicine for 7 days, by a local doctor, but without much response. On 21st DOI headache was increasing in severity, more on the right part of the head. She could not sleep properly since then. On 26th DOI child had neck pain associated with headache. She was taken to another hospital. Used medication, but did not get response. Child was having abnormally increased menstrual bleeding. 0n 30th DOI parents say child was having altered sensorium, irritable, had 1 episode of vomiting, non projectile, non bile stained, not associated with nausea, then brought to our hospital.

Drug history:

DOI	Drug	dosage	duration
From 15th	Tab. Paracetomol+ aceclofenac (1st paediatrician outside)	325mg+100 mg respectively	Past 15 days sos (taken about 10 times)
From 27th	Tab. flunarizine dihydrochloride (2nd paediatrician outside who did not stop above drug)	10mg	Past 3 days q 24th hourly

general examination
1. Petechiae, purpura and ecchymosis are present all over the body 2. Subconjunctival haemorrhage is present in right eye. 3. Hess test was negative. (false negative-low utility)

Past history:

S. NO	AGE	COMPLAINTS/SYMPTOMS
1	10 yrs	Childs first admission at PSIM with h/o bleeding diathesis (cutaneous) 1-2 year duration investigated and diagnosed as chronic ITP. Child was advised bone marrow examination. But parents refused the investigation and went to NIIMS after 48 hrs of supportive treatment. In Nims child was investigated and regularly got followed up once every month. Investigations done at NIMS not known
2	12yrs	The child with chronic ITP was admitted in PSIM with severe menorrhagia, admitted in Dr.PSIMS and treated. case record of this admission not available
Menstrual history: attained menarche at 11 yrs age and menstrual cycles are not normal , frequent menorrhagic cycles were present		

Variant 2: **Headache with signs of increased intracranial pressure or positive neurological signs.**

Radiologic Procedure	Rating	Comments	RRL*
MRI head without IV contrast	8	If lesion is seen, perform a contrast-enhanced scan.	O
MRI head without and with IV contrast	8	Use contrast if appropriate based on noncontrast scan.	O
CT head without IV contrast	7	If MRI is not available.	☢☢☢
CT head with IV contrast	5	If MRI is not available. If noncontrast CT is positive and fever is present.	☢☢☢
MRA head without IV contrast	5	If vascular pathology is suspected based on CT or MRI.	O
MRA head without and with IV contrast	5	If vascular pathology is suspected based on CT or MRI.	O
CT head without and with IV contrast	4	If MRI is not available and if noncontrast CT shows abnormality.	☢☢☢☢
CTA head with IV contrast	3	Consider if SAH is seen on noncontrast CT.	☢☢☢☢
Arteriography cerebral	2		☢☢☢☢
Rating Scale: 1,2,3 Usually not appropriate; 4,5,6 May be appropriate; 7,8,9 Usually appropriate			*Relative Radiation Level

CT-scan BRAIN PLAIN STUDy

CT BRAIN: chronic Subdural haemorrhage with acute component

with adjacent oedema/ acute subdural haemorrhage with mass effects and adjacent edema in right cerebral convexity subarachnoid haemorrhage along the falx and tentorium on right side

DATE Jan 2018	6th 1 HOA	7th 10 HOA	7th 26th HOA	8th 42 HOA	12th 7th DOA
PLATELET S	15000-IVIG, plts given	60000	35000-IVIG, plts given	350000	270000
MCV	66.7	66.5	66.3	76.9	66.2
MCH	20.7	19.7	20.2	25.1	20.3
MCHC	31.1	29.6	30.4	32.6	30.7
PS	Microcytic hypochrom ic anemia, neutrophili a, thrmbocyt openia	Microcyt ic hypochr omic anemia, neutrop hilia, thrmboc ytopenia	Microcytic hypochro mic anemia, neutrophi lia, thrmbocy topenia	Microcytic hypochro mic anemia, neutrophi lia,thrmbo cytopenia	Microcytic hypochro mic anemia, neutrophi lia, thrmbocy topenia

DISCUSSION:

Clinical Learning Points From This Case **Prevalence of ICH in Acute ITP is <1% (Nelson 20th Ed).**

This girl experienced such a rare complication.

1. **NSAIDS should not be prescribed without confirming the absence of bleeding tendency.**
2. **Tranexemic acid prescription along with NSAIDS or not discontinuing NSAIDS is a paradoxical thinking and a therapeutic mistake.**
3. **Lack of complete history taking and/or medical records leads to lot of problem**
4. **Hess test is unreliable**

A Japanese study reported menstruation as a risk factor in ICH[3] and the Egyptian study found 70% of their cases had associated bleeds[4]. ICH in ITP is a medical emergency. Our patient showed good responses to both IVIG and steroids during the acute phase of ITP. The mortality rate of ICH varies from 12.5-25%[3.] Bethan et al reported that 25% of their patients had neurological sequelae[5]

CONCLUSION:

Our case demonstrate that successful treatment of ICH in ITP can occur, provided early diagnosis and prompt, aggressive management is instituted. It should be emphasised to patients that as long as severe thrombocytopenia persists, the risk of ICH remains, hence regular follow-up and early presentation to hospital is advised. NSAIDS should not be prescribed without confirming the absence of bleeding tendency

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