UNIQUE CASE OF CORROSIVE ACID POISONING – A CASE REPORT

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ABSTRACT :

A unique case of missed corrosive acid poisoning has been taken-up for report, along with clinical history and histopathological study.

Man is in continual contact with toxic agents. Many deaths occur annually due to poisonings and quite a large number of patients die because of missed diagnosis & inadequate treatment. Proper diagnosis of poisonous substance consumed by a person may not be always possible, especially when history and external findings are misleading, though the clinician has the opportunity to study clinical features at first hand.

Timely diagnosis and quick detection of poison to initiate the specific treatment with suitable antidotes, reduces the morbidity and mortality in poisoning cases. Hence, the clinician should always consider the poisoning by various toxins as differential diagnosis in cases of acute abdomen. However autopsy surgeon has the advantage of inspecting the organs internally and subjecting different body fluids and tissues for laboratory testing to hit the diagnosis.

Key-words - Toxic agents, missed diagnosis, poison information , differential diagnosis.

INTRODUCTION:

Man is in continual contact with toxic agents. Many deaths occur annually due to poisonings and quite a large number of patients die because of missed diagnosis & inadequate treatment. Proper diagnosis of poisonous substance consumed by a person may not be always possible, especially when history and external findings are misleading, though the clinician has the opportunity to study clinical features at first hand.

CASE HISTORY:

An adult male aged 25 years from a near by village of Kolar was admitted to the Medical college Hospital on 18-12-2003 at 5 p.m. with following complaints;

Acute pain in the abdomen – occasional vomiting and thirst – since 3 days.

No, H/o poisoning was offered by the patient and also the relatives.

PHYSICAL EXAMINATION:

On admission :-Patient was semiconscious, with slight difficultly in speech and deglutition. eructation, nausea and occasional vomiting and thirst. Vomitus was brownish black in color. Face. Oral cavity – NAD, Pulse – 110 / min, B.P. 110/90 mm Hg, Pupils – dilated, reacting to light. Dyspnoea – present, No ronchi. Per abdomen – slightly tender. no rigidity. Patient was put on ventilator support and treated on conservative line of treatment. Patient did not allow Ryle's tube insertion.

Provisional clinical diagnosis :-

1) Acute pancratitis?
2) Mesenteric Ischaemia? and gangrene?
3) Acute appendicitis?

Plain –X-ray and U.S.G. – No signs of peritonitis

Second day:Exploratory Laparotomy was done after 36 hours of admission and Operative findings were - Grossly dilated, edematous, discolored (patchy) stomach & duodenum. Pancreas –NAD .No Ischemic segments. Focal

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loculations with small straw yellow colored fluid in the peritoneal cavity with mild peritoneal reaction. Abdomen closed without resection of any part.

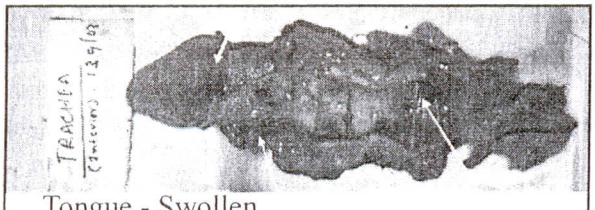
Sixth day :Patient died at 11 am with a total survival period of 8 days. Case was registered as MLC after death and sent for autopsy.

AUTOPSY FINDINGS:

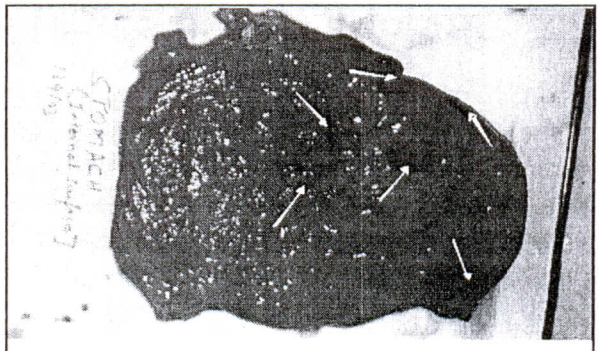
External Examination :- Body is that of a male aged 25 yrs, well-built and nourished. A sutured surgical wound 23 cms. noted in the midline of abdomen.

Teeth – normal. Tongue – swollen. Eyes – Sunken. Blood Stained Saliva present at angle of mouth.

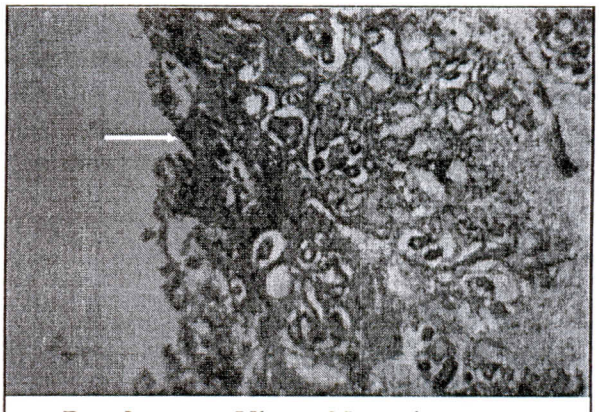
Internal Examination; Pharynx – blackish with signs of corrosion. Larynx - blackened and edematous. Trachea edematous. Lungs – Edematous & Congested with Sub pleural hemorrhagic spots. Heart - No Specific changes. Esophagus: - Inflamed with blackish corrosive spots. Stomach - swollen with thick walls, patchy blackish charred appearance with mucosal ulceration, loss of rugocity seen. Peritoneum contained straw yellow coloured fluid about 60-70 ml. Duodenum - blackened with perforation at its posterior surface. Jejunum contained dark colored blood. Small & Large Intestines were distended and filled with dark coloured blood. Pancreas: Normal. Spleen and Kidneys Congested. Liver: Surface shows small multiple hemorrhagic spots and congested. Organ samples and body fluids were collected for chemical analysis and Histopathological examination.



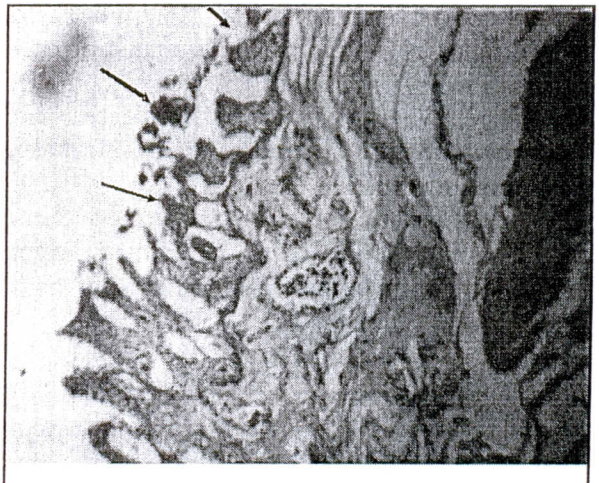
Tongue - Swollen
Pharynx - Blackish with sign of corrosion
Larynx - Blackened and oedematous
Trachea - Oedematous



STOMACH: Soft, Swollen, blackish charred spots with mucosal ulceration and Moderate loss of rugocity. Contains few mucous shreds.



Duodenum: -Ulcero-Necrotic mucosa
-Transmural congestion and oedema
-Brunner's glands seen



Stomach:
-Necrotic mucosa along with normal mucosa
-Vascular congestion
-Partly preserved mucus glands

HISTO-PATHOLOGY:

Lungs:- Wide areas of congestion and focal Haemorrhagic areas are seen. Aspergillosis colony with hyphae in parenchyma. Stomach: Ulcero – Necrotic mucosa, vascular congestion and partly preserved mucus glands seen. Duodenum: Shows ulcero necrotic mucosa, trans-mural congestion and oedema .Brunner's glands seen. Liver:- Shows congestion ,central vein and sinusoidal dilatation. Kidney :Shows hemorrhages in tubules ,acute tubular necrosis and congestion.

Inference; Focal trans-mural necrosis and blackening of upper G.I.T involving esophagus and stomach. Necrosis and perforation of duodenum. (Perforation probably occurred after surgical exploration). Heamorrhagic spots in lungs, liver and kidneys are suggestive of corrosive acid poisoning and secondary shock.

F S L. Report:- No Poison detected.

DISCUSSION:

The deceased would have survived, if he was to be brought to the hospital at the earliest. In the absence of proper history and misinterpretation of signs and symptoms by the treating doctors , who missed the diagnosis of corrosive acid poisoning lead to symptomatic treatment and ultimately the fatality. First and second day – Except for the pain abdomen, there were no signs of peritonitis. G.C. got deteriorated and refractory to treatment for electrolyte imbalance. Vomitus was not collected and examined. Second day night exploratory laparotomy was done. 5th day morning – Patient died after three and half days after surgery. Same day evening autopsy was performed which showed signs of patchy (focal) corrosion of upper G.I.T.

In this case the deceased .who was a jewelry maker by profession, probably consumed the weak acid in low quantity. With misleading case history , it is most unlikely that the patient took poison 3 days prior to admission. He might have consumed the acid after full meals , which might have delayed the appearance of symptoms. No external signs of corrosion were seen over the teeth, mouth, lips and skin etc. possible he might have gulped the acid directly in to the orophyranx .

One of the major reasons for the clinical practitioners ignoring the grim reality of poisoning in India, is that the treatment is woefully inadequate and information resources are very scanty.

- Can such misdiagnosis amount to apathy or an element of Medical negligence ?

- Or is it a case of Contributory negligence?

CONCLUSION:

A proper history and accurate diagnosis would have helped the patient to overcome the shock. Hence the process of diagnosis of poisoning cases varies according to, whether the victim is examined by a doctor, during life and after death. This case brings out the bitter reality that we are needlessly losing patient to poisons and our own apathy. Differential diagnosis of probability of poisoning must be considered in relation to diseases in every case, especially when the patient is admitted with acute abdomen. The need of the hour is to establish Poison Information Centers [P I C] across the length and breadth of the country for detection and treatment of poisoning cases round the clock. The supreme truth is that the clinical toxicology is struggling for life, in India, though the incidences of poisoning in this country are among the highest in the world.

Note : The relevant photographs / micro-photographs of HP, of case are with the author.

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