

A CROSS SECTIONAL STUDY OF GASTRO-INTESTINAL SYSTEM RELATED CAUSES OF SUDDEN DEATH

*Prateek Rastogi, **Ankita Jain

Abstract

The objective of medico-legal autopsies in sudden and natural deaths is to rule out the possibility of any unnatural element of death in otherwise normal individual. The aim of the present study was to study GIT related causes of sudden death. This autopsy based cross sectional research was conducted at Kasturba Medical College, Mangalore from the cases autopsied at District Wenlock Hospital, Mangalore from May 2004 to April 2008. Out of 2515 autopsies conducted during the study period 274(10.89%) were of sudden death, of which 34 (12.40%) were due to GIT related diseases. Out of which 88.23% were male and 11.76% were female. In our study, rupture of esophageal varices was a major cause of death. This study emphasizes need to create awareness among people about health and regular medical checkup, especially after 40 years of age.

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Key words: Sudden death; Gastro intestinal system; Autopsy.

Introduction

Forensic pathologists deal not only with unnatural deaths, but also with a wide range of natural deaths, especially, if they have occurred suddenly in apparently healthy individuals.¹ Suspicion usually arises when an individual is found dead in a public place, without anyone having witnessed it.² Death is said to be sudden or unexpected when a person not known to have been suffering from any dangerous disease, injury or poisoning is found dead or dies within 24 hours after the onset of terminal illness (WHO). The incidence is approximately 10 percent of all deaths.^{3,4} The purpose of medico legal autopsy in such deaths is to determine whether poisoning or violence has been in any

way responsible for the death. Absence of external evidence of injuries does not preclude death from physical violence.

Disease of any body system can result in sudden death. Diseases of Gastro-intestinal system account for about 10% of sudden death which is off course a rare but important cause of sudden death when compared with cardiovascular causes. The aim of the present study is to study GIT related causes of sudden death.

Materials and Methods

This autopsy based retrospective research was conducted at Kasturba Medical College, Mangalore from the cases autopsied at District Government Hospital, Mangalore from May 2004 to April 2008. Autopsies of persons found dead or who died within 24 hrs after onset of terminal illness and having no history of any injury, poisoning or previous disease, were selected as cases of sudden death. During this period total 2515 autopsies were conducted, out

* Associate Professor, Dept. of Forensic Medicine & Toxicology,

** MBBS Student (Final Year)

Kasturba Medical College, Mangalore

(A Constituent College of Manipal University)

Karnataka, India

Corresponding Address:

Dr. Prateek Rastogi

E mail: rastogiprateek@rediffmail.com

prateek.rastogi@manipal.edu

of these 274(10.89%) were of sudden death. After the data had been collected, it was entered manually into Microsoft Office Excel Worksheet and manually analysed.

Results and Discussion

Out of 2515 autopsies conducted during the study period 274(10.89%) were of sudden death, of which 34 (12.40%) were due to GIT related diseases. In a study on sudden death done by Pande et al⁵ death due to pathology in GIT accounted for 7.01% , 18.18% in study done by Kagne et al⁶ and 12.44% in a study by Deshpande⁶. In our study 88.23% were male and 11.76% were female (Figure 1), Pande reports 81.25% cases as males and 18.75% as females⁵. Cases were equally distributed between age group of 31-40, 41-50 & 51-60 years (26.47% each) . Haemorrhage due to rupture of esophageal varices (29.41%) was found to be the major cause of death followed by acute pancreatitis (26.47%) and hepatic failure (20.59%), Pande reports 40% of deaths due to rupture of esophageal varices and 18.75% as due to acute pancreatitis⁵ (Figure 3). Sudden death due to GIT related diseases were more in people with normal body mass index (52.94%) followed by underweight (41.17%) and least in obese people (Figure 4).

The incidence of sudden unexpected deaths varies from study to study due to difference in selection criteria of the cases. Majority of deaths were found in age group of 30-60 which can be easily explained due to the fact that this age group is more exposed to environmental factors such as indiscriminate use of alcohol, tobacco, sedentary life style and stress.

Deaths due to gastrointestinal causes are mainly related to lifestyle and dietary habits of individual in addition to a probable genetic predisposition. We suggest lifestyle modifications as a probable measure to combat this problem. Patients dying suddenly from natural pathological conditions are a challenge to medical profession in present time. There is a need to create awareness about health and regular medical checkups especially after the age of 40 years so that sudden death rate can be reduced and life expectancy be enhanced.

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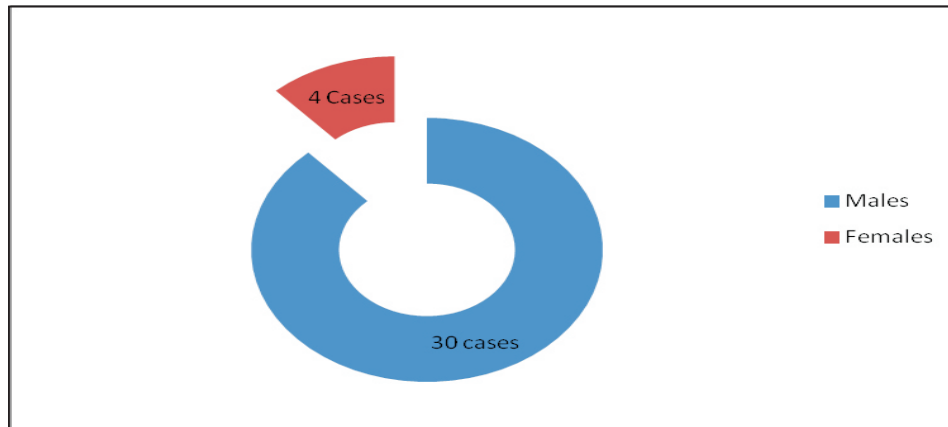


Figure 1. Sex distribution of study sample.

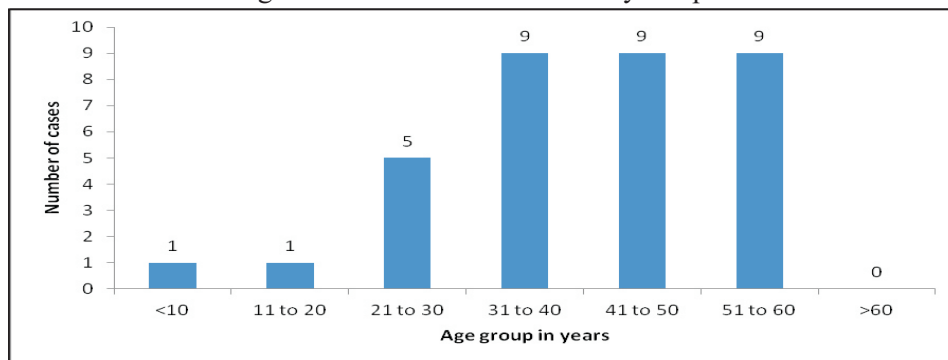


Figure 2. Age Distribution of study sample

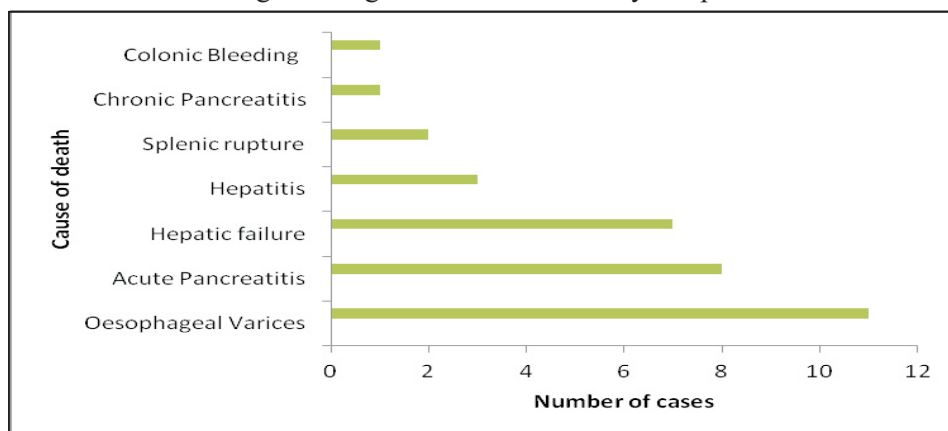


Figure 3. Cause of Death

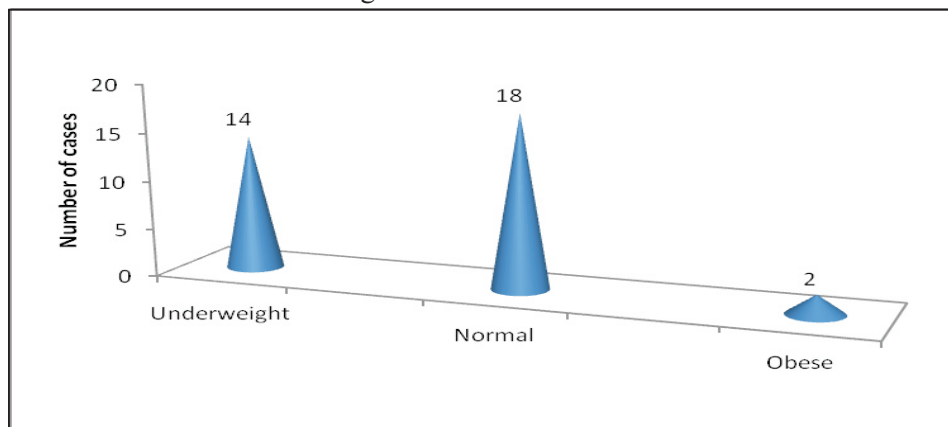


Figure 4. Distribution based on body mass index