

Gastrointestinal Manifestations and Laboratory Parameters of Dengue Patient in DNCC Dedicated Covid-19 Hospital in Dhaka City.



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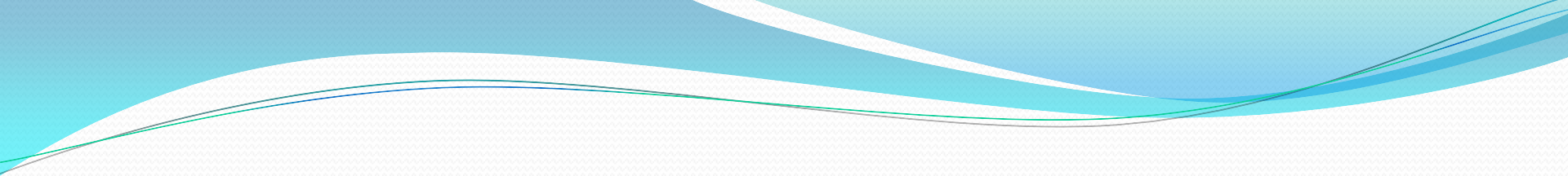
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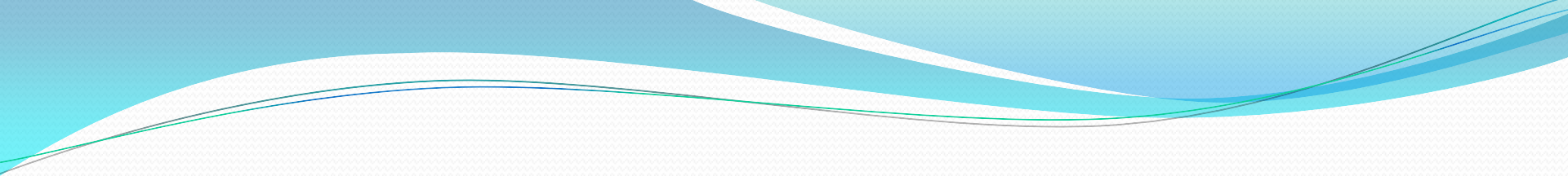
Shaheed Suhrawardy Medical College Hospital

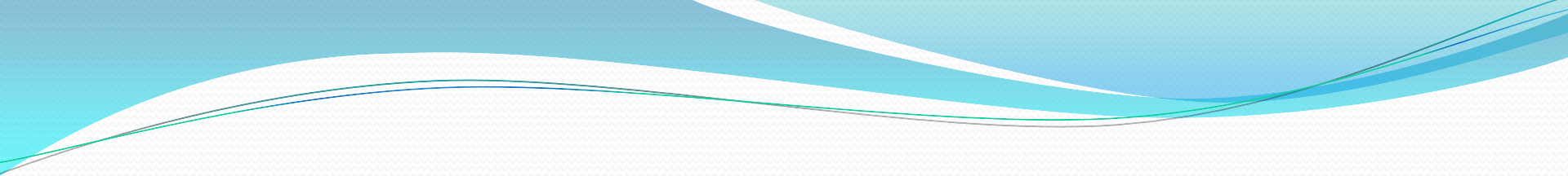
Attached DNCC Dedicated Covid-19 Hospital.

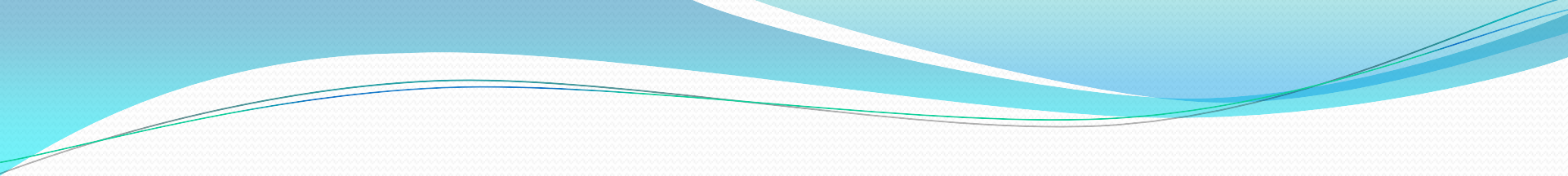
Background and Rationale

- Dengue word derived from the Swahili phrase "Kadinga pepo", meaning "cramp-like seizure caused by an evil spirit".
- Swahili word "dinga" origin in the Spanish word "dengue" meaning fastidious or careful, which would describe the gait of a person suffering the bone pain of dengue fever.

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- The most common and widespread arthropod mediated viral infection.
 - Caused by flavivirus and spread by the *Aedes aegypti* mosquito.
 - More than 2.5 billion people reside in the risky areas for dengue infection in the world.

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- Bangladesh is situated in the tropical and sub-tropical areas and a suitable habitat for the dengue infections.
 - Dengue occurs sporadically at Dhaka and other parts of the country before 2000.
 - Dengue outbreaks from 2000-2017, both types of the vectors (*Aedes aegypti* and *Aedes albopictus*) were identified in Bangladesh.
 - Has a seasonal pattern, with a peak incidence during July - November, mostly after monsoon.

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- Wide range of clinical manifestations and range from an asymptomatic or mild febrile illness (viral syndrome), dengue fever (DF), dengue haemorrhagic fever (DHF) to dengue shock syndrome (DSS) and
 - Atypical manifestations or Expanded Dengue Syndrome (EDS) like hepatitis, acute pancreatitis, GI bleeding, hepatomegaly, acute cholecystitis, ascites etc. These gastrointestinal involvement which could be challenging for clinicians.

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- Atypical manifestations are increased with rising disease burden due to rapid urbanization, growing population and inappropriate sanitary measures.
 - But, there are very few studies presents regarding this issue in our settings.
 - So, this study was aimed to identify the spectrum of gastrointestinal symptoms, signs and laboratory parameters of dengue patients in our settings.

Objectives

General Objectives:

- To determine the Gastrointestinal Manifestations and Laboratory Parameters of Dengue Patient in DNCC Dedicated Covid-19 Hospital in Dhaka City.

Specific Objectives:

- To assess the socio-demographic characteristics of the respondents admitted in DNCC Dedicated Covid-19 Hospital in Dhaka City
- To find out the spectrum of gastrointestinal manifestations in Dengue fever.
- To evaluate the Laboratory Parameters of Dengue Patient
- To study the correlation of GI manifestations with severity of Dengue fever.

Methodology

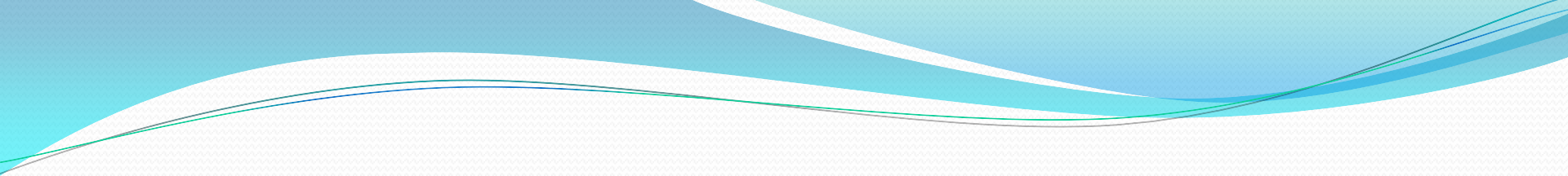
- **Study Design:** Cross-sectional observational study.
- **Place of Study:** DNCC Dedicated Covid-19 Hospital (Dengue corner), Mohakhali, Dhaka, Bangladesh.
- **Period of study:** August 2023 to January, 2024.
- **Study population:** Patients present with serologically positive new dengue syndrome
- **Sampling technique:** Non-randomized purposive
- **Research instruments:** A predesigned structured questionnaire

Inclusion Criteria

- Patients of any age irrespective of sex.
- Patients with dengue syndrome, NS1 or IgM positive with or without IgG positive.
- Patients willing to give written informed consent

Exclusion criteria

- Patients with Enteric fever, meningitis and or other causes of fever.
- Patients with established decompensated chronic liver disease.
- Patients with diagnosis pancreatitis, cholangitis, cholelithiasis or cholecystectomy.
- Patient with previously diagnosed bleeding disorder.



RESULTS

Table I: Demographic profile of study population (n=100)

Variables			n (%)
Age	Range (years)	03-85 (years)	
	Mean $\pm$ SD	29.66 $\pm$ 19.69	
Sex		Male	62%
		Female	38%

Figure 1: Pattern of Dengue infections (n=100)

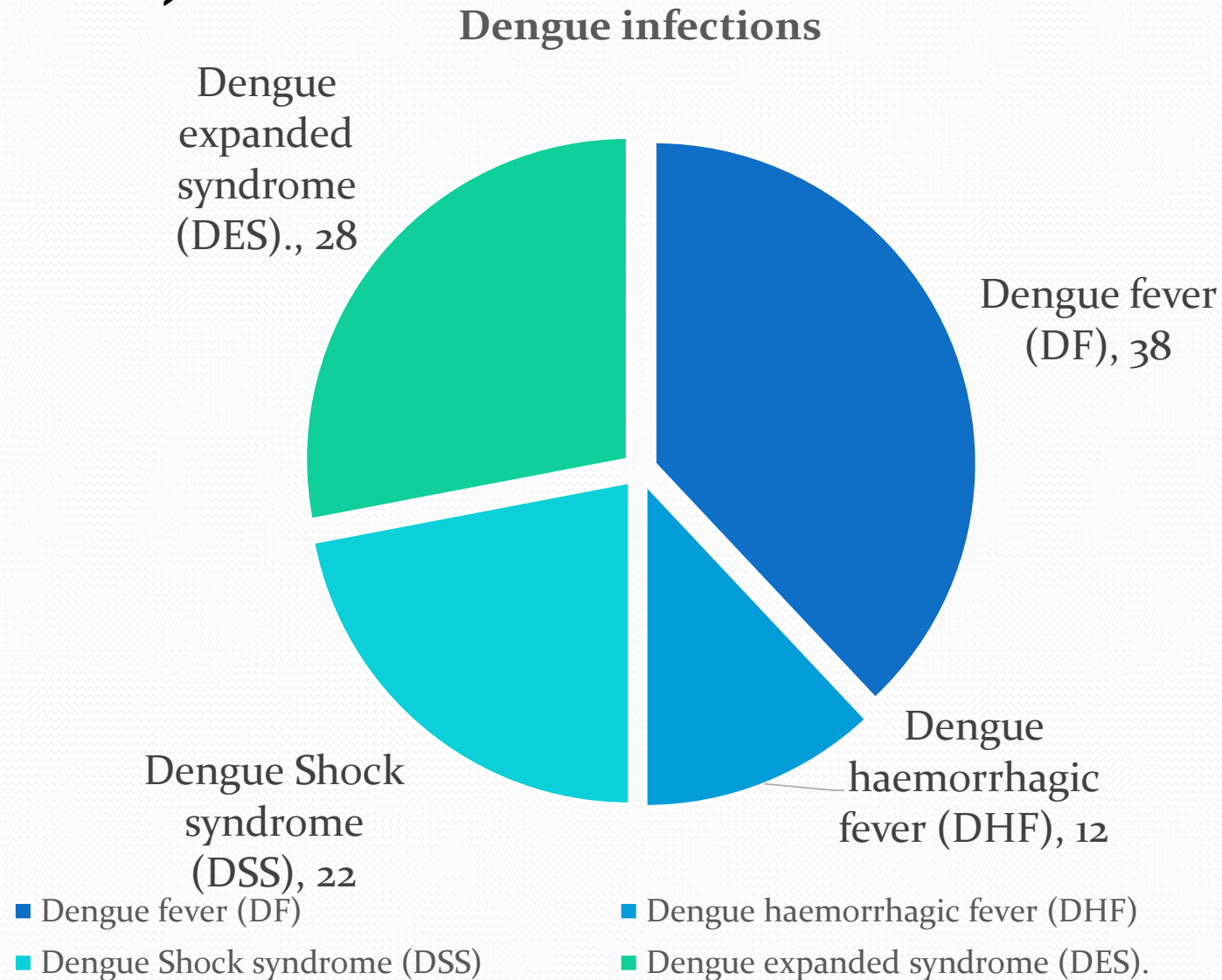


Table II: Distribution of various GI manifestations in Dengue fever. (n=100)

GI manifestations

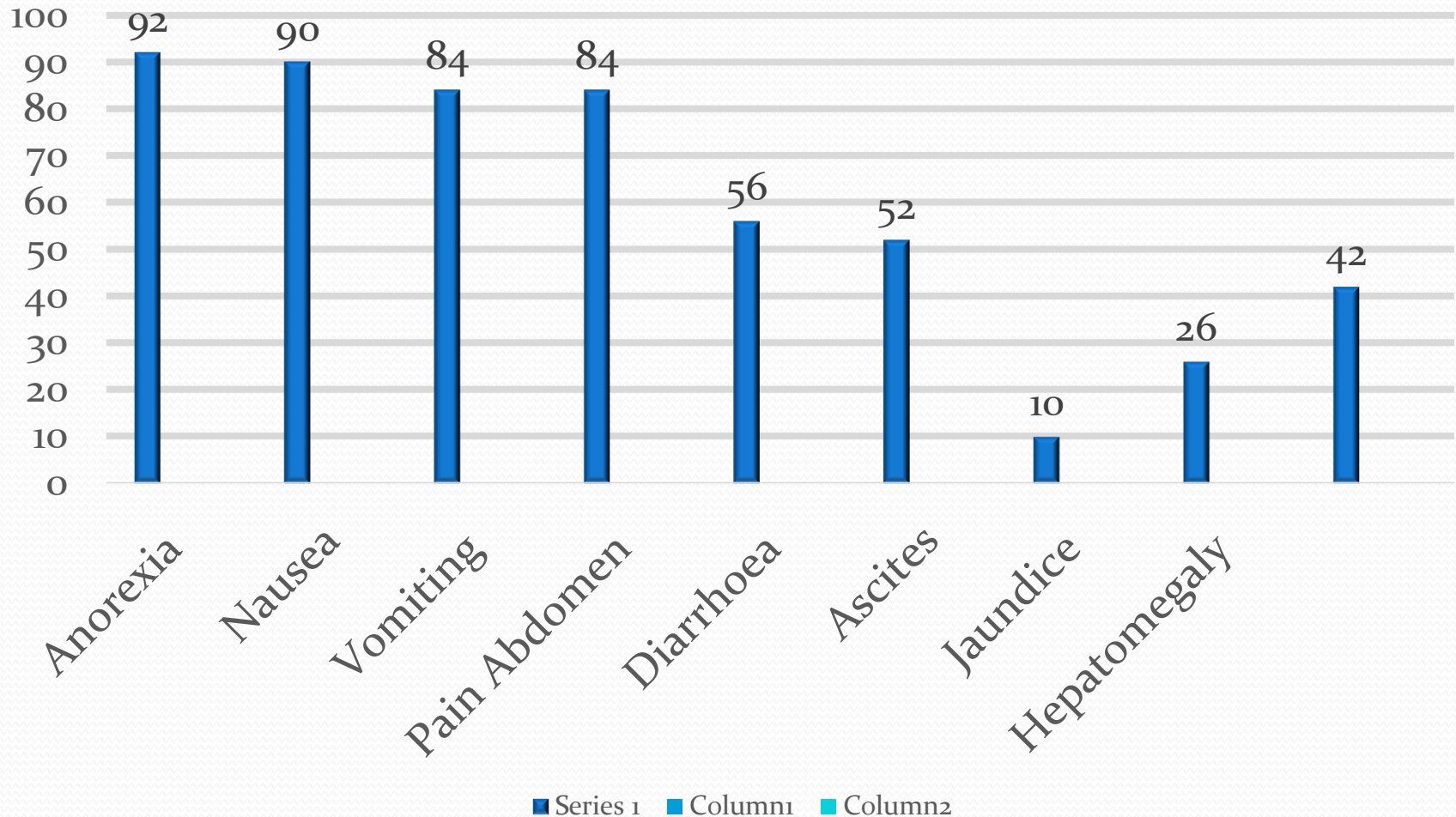


Table III: GI bleeding manifesting

Manifestations		Percentage
GI bleeding manifesting (38%)	Hematemesis,	14
	Melena	26
	Gum Bleeding	16

Figure 2: Severity of Dengue

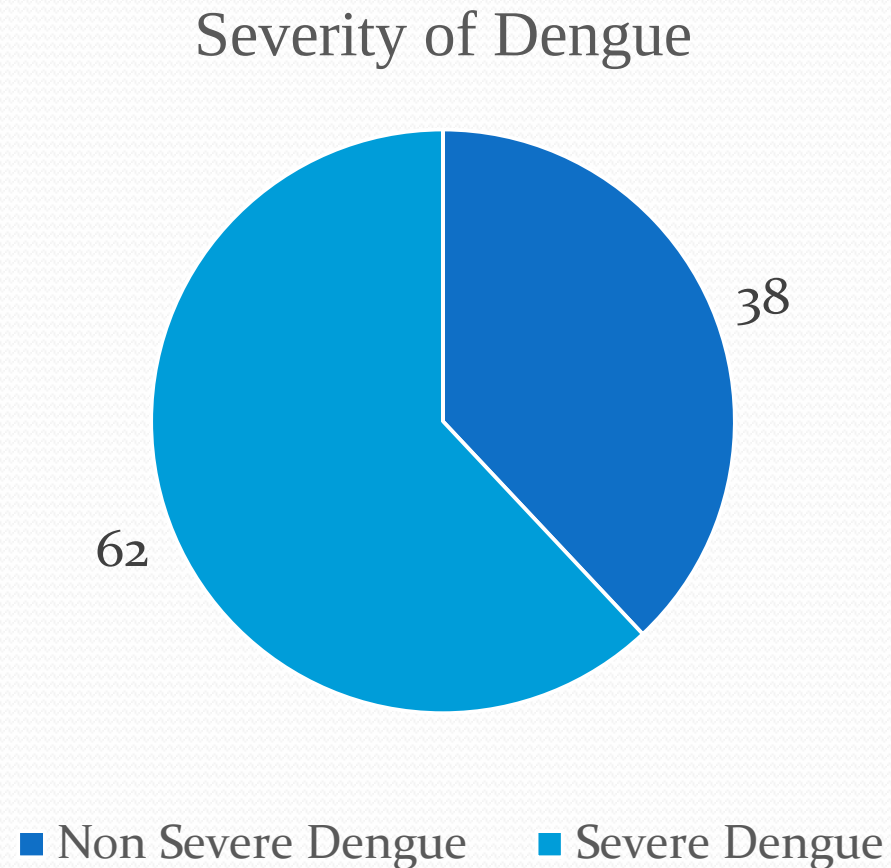
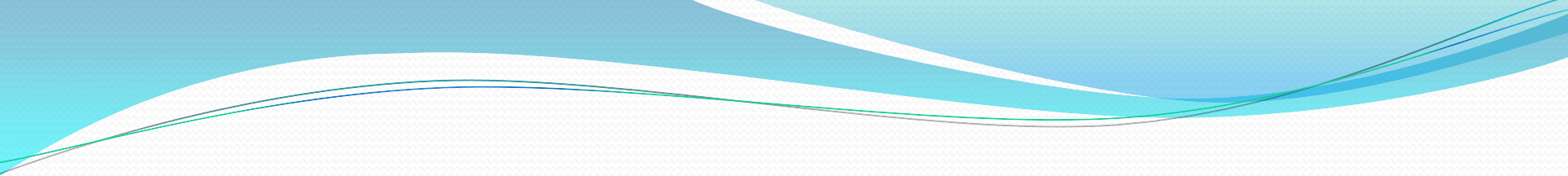


Table IV: GI manifestations and laboratory parameters with severity of dengue (n=100).

GI manifestation	Non severe dengue DF, (n=38)	Severe dengue (n=62)				P value
		DHF, n=12	DSS, n=22	DES, n=28	Total, n=62	
Anorexia	34	10	22	26	58	0.8184
Nausea	34	10	20	26	56	0.6969
Vomiting	30	8	20	26	54	0.9856
Pain abdomen	30	8	20	26	54	0.9856
Diarrhoea	12	8	16	20	44	0.0248
Ascites	18	6	12	16	34	0.8575
Jaundice	2	0	0	8	8	0.2971
Hepatomegaly	12	4	0	10	14	0.2712
Acalculous cholecystitis	18	6	4	14	24	0.3407
GI Bleeding	12	8	6	12	26	0.5865
SGPT	30	10	14	28	54	0.8834
SGOT	38	22	20	28	70	0.5402

Conclusion

- Gastrointestinal manifestations are very common in Dengue fever.
- Atypical GI manifestations like hepatitis are quite common than once thought of, are often missed.
- So, clinicians should be alert about abdominal pain, tenderness, diarrhoea, GI bleeding, jaundice, hepatomegaly and ascites and take urgent attention.



Thank You All