



The illustration shows a person sitting in a chair, connected to a large medical machine. Two bags, one red and one yellow, are hanging from a stand above the machine. The background is a light blue with a geometric pattern of white lines.

Apheresis Platelet Donation

**EFFECT OF APHAERETIC DONOR'S
BMI ON PLATELET YIELD**

Dr. Md. Abdul Quader
Associate Professor and Head
Transfusion Medicine Department
Popular Medical College
Email:quaderdr715@gmail.com



Back ground

Platelet transfusion plays an important role in prevention of bleeding related complications. Thus prevents morbidity and mortality in thrombocytopenic patients.

Back ground.....

Optimization of platelet yield is an emerging issue to identify factors which may help in selecting donors

→ to obtain higher platelet yields in shorter time

→ consequently better clinical outcome.

Aims

To evaluate the effect of BMI of apheresic donor's on platelet yield.

Materials and methods

Type of study : Cross Sectional

**Place : Blood bank of a
tertiary care hospital
(Popular Medical College).**

**Study period : From 01/11/2022 to
25/02/2023**

**Sample size : Seventy eight (78)
apheretic donor**

Consent : Informed written

Analysis : SPSS version 20.

Study parameters

- 1. Age**
- 2. Bodyweight,**
- 3. Height,**
- 4. Body mass index (BMI)**

Demographic

- 5. Hemogram values
(hemoglobin, hematocrit,
and platelet count)**

**BECKMAN
COULTERHmX/Auto
loader system**

- 6. Platelet collection**

**The Haemonetics
MCS+ system was
used for apheresis**

Pre-donation input



Post donation yield



Results

→ **The 78 donors were included to analyze the effect of BMI on platelet yield.**

→ **Mean age- 30.14± 8.45 years.**

→ **Platelet yields - more in normal healthy, overweight and obese donors in the range of 2.5-3.5(10^{11} /unit).**

→ **Statistical significance-
Not significant**

Conclusion

Platelet recovery in the patient is influenced by the transfused dose of platelets, which in turn is dependent on the quality of the platelet product in terms of yield.

Conclusion.....

Various donor factors such as pre donation platelet count, hemoglobin concentration and BMI of donors may affect platelet yield.

A scenic landscape featuring a waterfall cascading over a rocky ledge. A large butterfly is captured in mid-flight above the water. In the foreground, a field of vibrant pink and white daisies is in bloom. The overall scene is bright and colorful, with a soft, painterly quality.

Thank You