#2000035 Epidemiological, clinical and biochemical profile of serum protein electrophoresis: experience of the biochemistry laboratory at the MOHAMMED VI University hospital center

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Introduction:
Serum protein electrophoresis (SPE) is a routine analysis in the daily practice of a medical biology laboratory. The objective of our study is to describe the epidemiological, clinical and biochemical characteristics of the electrophoretic profiles analyzed in our laboratory.

Materials and Methods:
 This is a retrospective study spread over a two months period from 01/01//2020 to 01/03/2020. SPE was performed on Capillarys flex Piercing, isotope was done by serum immunofixation on hydrasys .
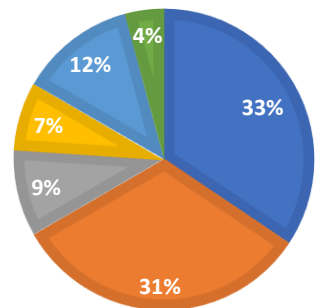
Results :

532 samples were collected with a sex ratio of 1.2. The most requesting services were reception and collection center for external patients (33%), Internal medicine (31%), Pediatrics (9%), rheumatology (7%), nephrology (12%) , dermatology (4%). Hemolyzed serum account for 4% of all samples.
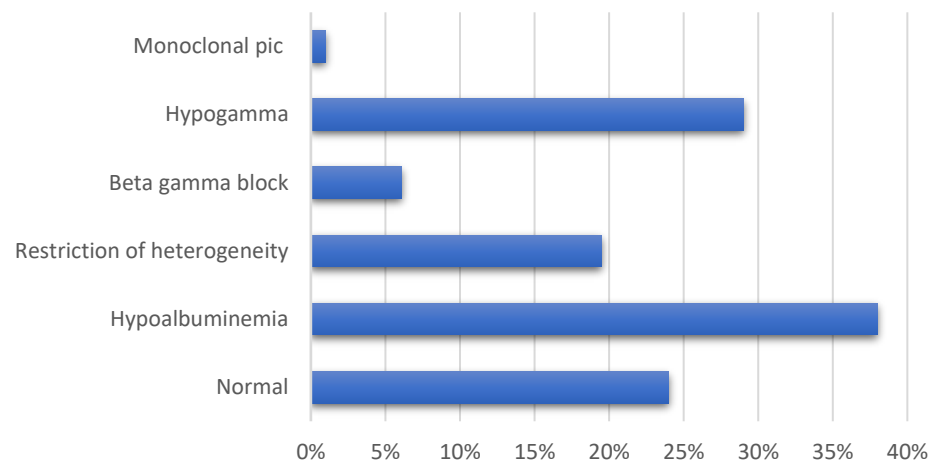
Patients were aged between 3-89 years, with an average age of 45 years; 24% of SPEs were normal, hypoalbuminemia was found in 38% of cases, restriction of heterogeneity of the gammaglobulines in 19.5% of cases, 6,1% of our patients had betagamma block, hypogammaglobulinemia was found in 29% of cases and 15 monoclonal peaks were noted, bisalbuminemia was found in 1 patient. Out of 532 collections: 195 immunofixations were performed, of whom 56 were positive (showing monoclonal gammopathy). This study highlights the variability in prescribing serum protein electrophoresis as well as the importance of clinical data for a better interpretation.

SERVICES PRESCRIBING SERUM PROTEIN ELECTROPHORESIS

Legend:
- external patients
- Internal medicine
- Pediatrics
- Rheumatology
- Nephrology
- Dermatology

Results of serum protein electrophoresis

Conclusion:
This study showed the value of SPE in diagnosing various pathologies, which implies the need for recommendations for good prescribing and interpretation practices for this examination.