HUMAN SERUM ALBUMIN: ANALYSIS OF USE

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BACKGROUND AND IMPORTANCE

Human serum albumin (HSA) is widely used in clinical practice, although many indications are still being debated.

AIM AND OBJECTIVES

Analyse the clinical indications for HSA and the level of evidence for them.

MATERIAL AND METHODS

- Observational, retrospective, multidisciplinary study in a secondary hospital.
- **Inclusion criteria:** patients >18 years admitted, treated in Specialized Outpatient Clinic or Emergency Department, who have received at least one dose of HSA during 2019.

**Variables**

- Demographic
- Admission diagnosis
- Number of HSA prescriptions
- Duration of treatment
- Previous serum albumin
- Previous infection
- HSA indication
- Level of evidence of the indications

**GRADE I: High priority**
Paracentesis-induced circulatory dysfunction (PICD) after large volume paracentesis (>5 liters); hepatorenal syndrome, renal failure after spontaneous bacterial peritonitis (SBP), plasmapheresis

**GRADE II: Reasonable evidence, but with available alternatives**
Resuscitation in critically ill patients with septic shock when cristalloids are insufficient

**GRADE III: Weak evidence**
Hypervolemic hyponatraemia in decompensated cirrhosis, awaiting liver transplantation, non-SBP bacterial infections in cirrhotic patients, prevention of PICD <5 liters

**GRADE IV: Treatment not recommended**
Other indications

*Based on the scale established by The American Society of Apheresis

RESULTS

N = 142 patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
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<tbody>
<tr>
<td>Age</td>
<td>66±11 years</td>
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<tr>
<td>Sex</td>
<td>41% women</td>
</tr>
<tr>
<td>Duration of prescription</td>
<td>3 days (IQR 2-4)</td>
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<td>Basal plasma albumin</td>
<td>2.5±0.5 mg/dL</td>
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<tr>
<td>Previous active infection</td>
<td>48%</td>
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<td>Batches of HSA</td>
<td>223</td>
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**MAIN ADMISSION DIAGNOSES**

- Decompensated cirrhosis: 32%
- Septic shock: 31%
- Hemorrhagic shock: 5%
- Respiratory infection: 4%

**MAJOR INDICATIONS OF HSA**

- Anasarca and hypoalbuminemia: 32%
- Prevention of PICD> 5 liters: 17%
- Resuscitation in shock septic: 13%
- Protein malnutrition: 9%

**GRADE OF EVIDENCE**

- Grade I: 26%
- Grade II: 13%
- Grade III: 9%

CONCLUSION

There is an important use of HSA in the hospital with a low level of evidence. It is necessary to train prescribing doctors to optimize the use of HSA in the hospital.