

Acute hepatitis after paracetamol poisoning: Analysis of potentially influencing factors

Solís-Cuñado S.¹, Hijazi-Vega M.¹, Luengo-López M.², Gómez-Bermejo M.¹, Martín-Zaragoza L.¹, Cosin-Munilla L.¹, Sánchez-Rubio-Ferrández J.¹, Molina-García T.¹.

¹Pharmacy Service, Getafe University Hospital, Getafe (Madrid), Spain

²Hospital Emergency Service, Getafe University Hospital, Getafe (Madrid), Spain

Background and Importance



Paracetamol poisoning (PP) can lead to acute hepatitis: acute inflammation and necrosis of the liver parenchyma.

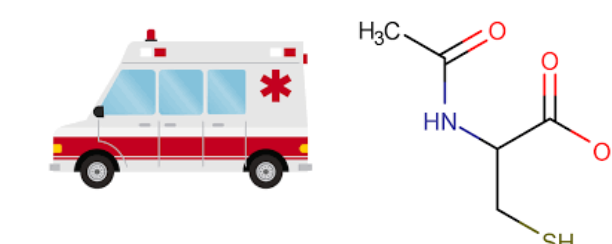


Inflammatory parameters usually begin to rise within 48-72h. An unfavourable course of acute hepatitis predisposes to acute liver failure.



Aim and Objectives

- Analysis of the prevalence of acute hepatitis after PP
- To identify which epidemiological and intoxication-associated variables are related to the development of AH



Materials and Methods



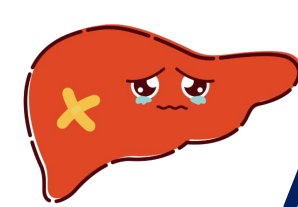
Observational, descriptive and retrospective study



January 2019 – August 2024



Patients treated with N-acetylcysteine for PP in Emergency Department



Acute hepatitis was defined as

- Non-specific gastrointestinal symptoms / asthenia / abdominal pain
- Elevated aspartate-aminotransferase enzyme , bilirubin >2.5mg/dL
- INR > 1.5



Analytical test conducted at the conclusion of the NAC perfusion and 48 hours post-poisoning was reviewed

Variables examined

- ✓ Age, sex
- ✓ Potential risk factors for paracetamol hepatotoxicity
- ✓ Massive paracetamol intake, time between PP and starting of NAC treatment
- ✓ Variables related to a correct management of NAC (dosage, preparation, administration, and infusion duration)



SPSS v.27 for statistical analysis

Variables under examination ← Relationship investigated through Chi-square test (p<0,05) → Onset of acute hepatitis

Results

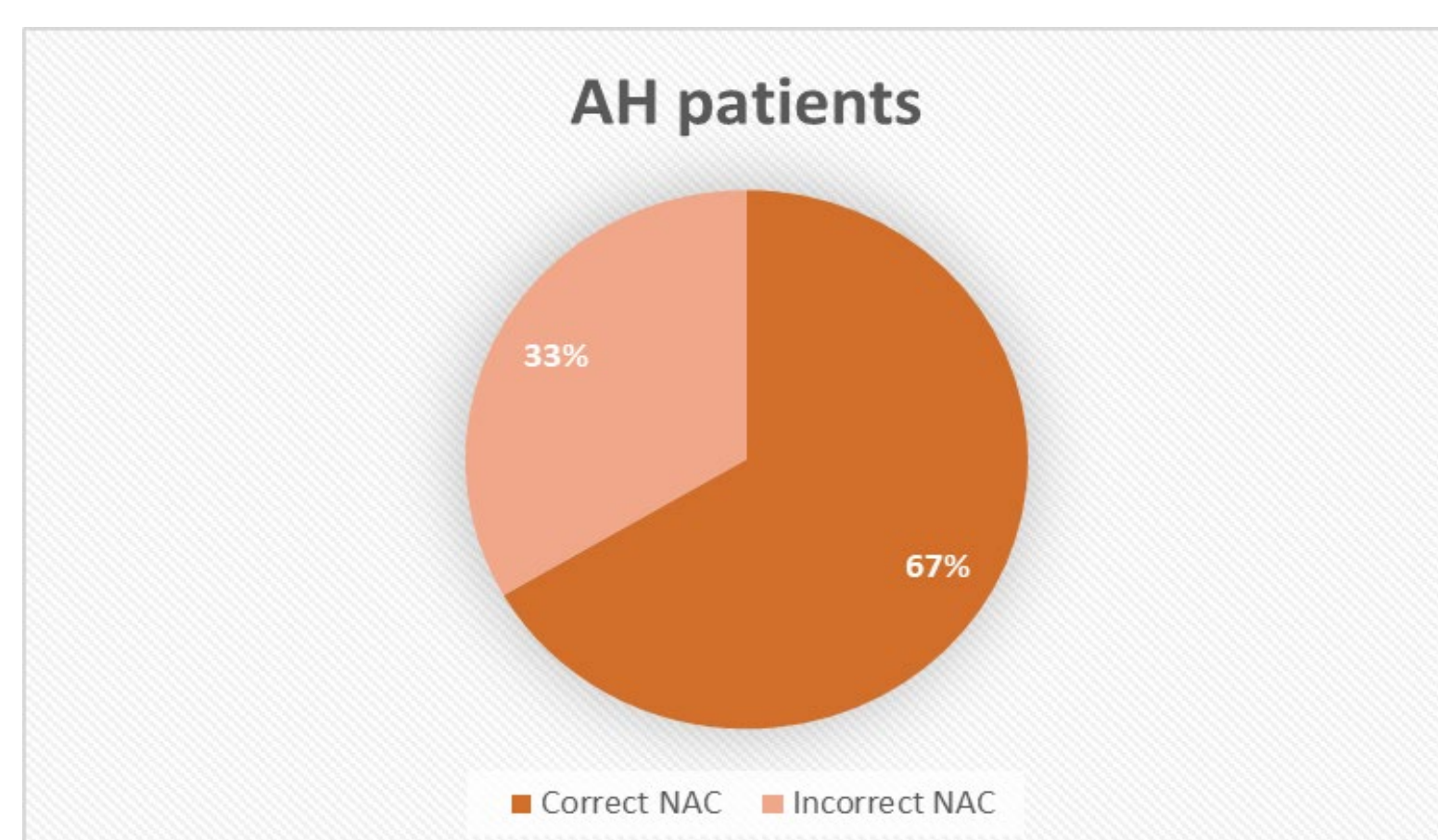
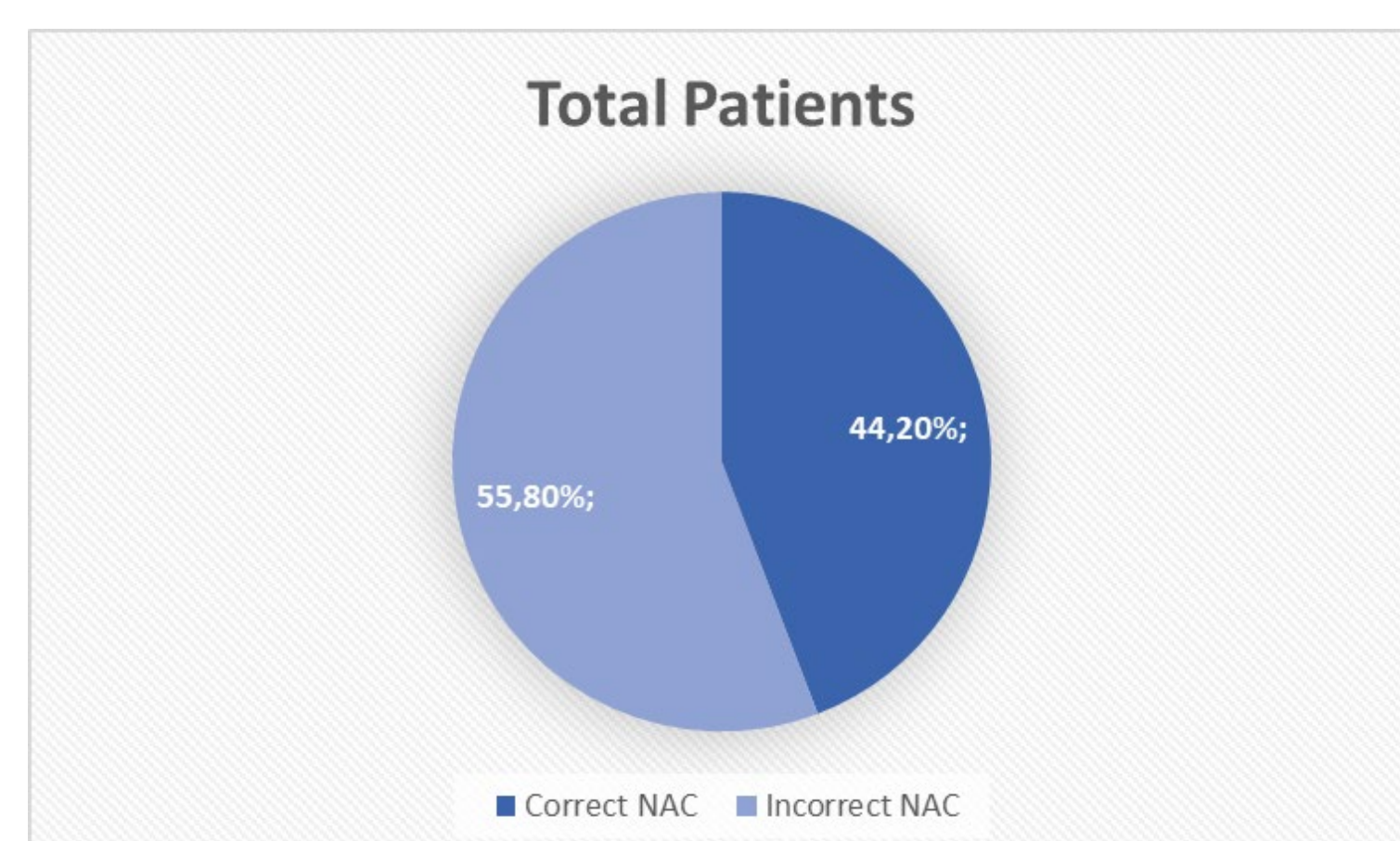


N=43
72.1% ♀
Median age = 19
[IQR=10]

The prevalence of patients with acute hepatitis was 6.9% (3/43)
A total of 20.9% patients presented with PRFP, none of them developed acute hepatitis

Analysis of variables related to use of NAC

NAC was inappropriately used in 55.8% of total patients and in 66.6% of AH patients (p>0.05)



Two of three patients with AH: consumed >30g of paracetamol and the start of NAC was 8 hours after intoxication (p=0.003)

Conclusion and Relevance

- Acute hepatitis was predominantly observed in young female patients.
- The percentage of NAC errors was high, particularly among the acute hepatitis patients.
- There was a statistically significant association between AH and both massive intakes and delayed initiations of NAC.
- Further study of more patients may help to clarify this correlation.