IMPACT OF THE SARS-COV-2 PANDEMIC ON THE USE OF ANTIFUNGALS IN AN INTENSIVE CARE UNIT IN A THIRD-LEVEL HOSPITAL

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Background and Importance

With the arrival of the SARS-CoV-2, it has been observed that the number of cases of fungal infection has increased in critically ill patients, especially invasive pulmonary aspergillosis (IPA).

Objectives

To analyse the use of antifungals, expressed in defined daily dose per 100 annual hospital stays (DDD/100S), and the difference in economic impact between 2019-2020 in the Intensive Care Unit (ICU) of a tertiary hospital.

Materials and Methods

Retrospective descriptive study of the use of antifungals in the ICU unit during 2019-2020. The data were obtained from the STOCK-Athos-APD® drug management electronic program and PRISMA® electronic prescription program. For each antifungal agent, the following information have been collected: annual global DDD, annual DDD/100S and economic cost of antifungal agents in both years. To calculate this expense, the mean annual cost/stay was used.

Results

Antifungals used:

- **Amphotericin B Liposomal**
- **Anidulafungin**
- **Caspofungin**
- **Micafungin**
- **Fluconazole**
- **Voriconazole**
- **Posaconazole**
- **Isavuconazole**

- The registered stays to the ICU were 5768 in 2019 and 5782 in 2020.
- The global DDD/100S of antifungals in 2019 was 37,73 while in 2020 it increased to 38,43.

The cost of antifungals in the ICU had an increase of € 112,086.62 (43.8% more than in 2019).

The antifungals with the highest increase were isavuconazole and posaconazole, with 4.2 and 5.1 DDD/100S, respectively. This increase is due to the increase in IPA cases and a period of shortage of voriconazole, the first-line antifungal in our hospital for IPA in patients without renal failure and without drugs with a possible interaction.

There was a decrease in the DDD/100S of fluconazole. This decrease is due to an increase in patients with complicated candidemia, long-term in the ICU who required a broad-spectrum antifungal such as caspofungin.

Conclusion

The global DDD/100S of many antifungals in ICU has shown a slight increase between both years. The consumption of these has changed, and this has been manifested with an increment in economic spending as they are drugs with a greater economic impact.