USE OF INTRATHECAL LIPOSOMAL-AMPHOTERICIN B FOR CANDIDA MENINGITIS: A CASE REPORT.

P. Granda¹, M. Sánchez De Castro¹, S. García¹, A. Yuste¹, P. Sánchez¹, S. Heinz¹, P. Prats¹, MH. Gonzalo¹, G. Ramirez². ¹Pharmacy. ²Infectious Diseases.
Hospital Central de la Defensa Gómez Ulla. Madrid. Spain

BACKGROUND
Amphotericin B (AmB) is a standard treatment for opportunistic fungal pathogens. Intravenous lipid formulations of AmB (L-AmB) allow the administration of higher doses. To achieve higher concentration in cerebrospinal fluid (CSF), intrathecal administration of L-AmB has been successfully used. Appearance of different Candida species in CSF are infrequent but critical, therefore, there are still significant knowledge gaps in intrathecal L-AmB pharmacodynamics and pharmacokinetics.

PURPOSE
To describe the use of intrathecal L-AmB in Candida meningitis in one patient.

MATERIAL AND METHODS
A 59-year-old woman with a history of obesity with metabolic syndrome was admitted to the Neurosurgery Service for bilateral cerebellar ischemic infarction needing decompressive craniectomy. During her evolution she presented as a complication CSF fistula requiring lumbar draining and subsequent urgent surgical intervention. CSF analysis revealed total cells 1400/mm³, leukocytes 1398/mm³, 6.38 mg/dL of glucose and 315 mg/dL of protein. C. albicans and Nakaseomyces glabrata (previously named C. glabrata) were isolated in removed adipose flap and CSF, respectively. Intravenous and intrathecal antifungal therapy was required and so, the Pharmacy Service was asked to develop a L-AmB intrathecal injection.

RESULTS

<table>
<thead>
<tr>
<th>L-AmB (5mg/kg/day) IV</th>
<th>FLUCYTOSINE (25mg/kg/6h) PO</th>
<th>L-AmB INTRATHECAL (0.5 mg/day dissolved in 3 ml of 6% dextrose)</th>
<th>De-escalation to VORICONAZOLE FLUCYTOSINE L-AmB INTRATHECAL</th>
</tr>
</thead>
</table>

- Inability of removing lumbar drain
- Persistence of infection
- Good clinical/analytical/microbiological evolution

INTRATHECAL L-AmB discontinued 20th day of treatment, when:
- CSF cell count, glucose and protein were OK
- Last four CSF cultures kept sterile.

WELL TOLERATED
NO SIDE EFFECTS

CONCLUSION
Despite the limitations in the interpretation of this case report, the administration of intrathecal L-AmB may constitute a less toxic therapeutic alternative to conventional AmB (deoxycholate) for Candida meningitis.