Endogenousendophthalmitis : A case report

Abstract :

This studyaims to present a case of endogenousendophthalmitiscomplicating a pulmonaryabscess, and to discuss the clinicalfeatures of thispathology. Acute endophthalmitisis a pan uveitismost oftenresultingfrombacterial infection; itistermedendogenouswhendissemination occurs via the hematogenouswayfrom a septicsite. This is a 75-year-old patient with no history of ocular surgery or other endo-ocularprocedures or trauma, whopresented 2 yearsagowith a poorlytreated pulmonaryabscess, and who came to the emergency departmentwith a painfulredeyeassociated withdecreasedvisualacuity in the lefteye. Vitrectomymayalsobeindicated. Given the fragile nature of the patient's condition, the prognosisisoftenpoor, bothanatomically and functionally.

Keywords : endogenousendophthalmitis, pan uveitis, pulmonaryabscess, pathology, case report

Introduction

Acute endophthalmitisis a pan uveitismostoftenresultingfrombacterialinfection;it can beendogenous or exogenous ;itistermedendogenouswhendissemination occurs via the hematogenousdissemination from a septic focus. It is a rare pathology, occurringmainly in frailsubjects, and often has a poorvisualprognosis. Our aimis to present a case of endogenousendophthalmitiscomplicating a pulmonaryabscess, and to discuss the clinicalfeatures of thispathology.

Case Presentation :

This is a 75-year-old patient with no history of ocularsurgery or other endo-ocularprocedures or trauma, whopresented 2 yearsagowith a poorlytreatedpulmonaryabscess, and who came to the emergency departmentwith a painfulredeyeassociatedwithdecreasedvisualacuity in the lefteye. Examination of the lefteyerevealedvisualacuitywith finger movements, diffuse conjunctivalhyperemiawith purulent secretions, cornealedema, KPS (superficialpunctiformkeratitis), a 2-cross anteriorchambertyndall, a hypopyon and a nuclearcataract. Examination of the posterior segment reveals dense hyalitis, making the Funduscopic exam inaccessible to clinicalexamination.

Figure 1: Aspect of the eye on admission, showingconjunctivalhyperemia.

B-modeultrasonographyreveals dense, compartmentalizedvitreousechoes and choroidalthickening.

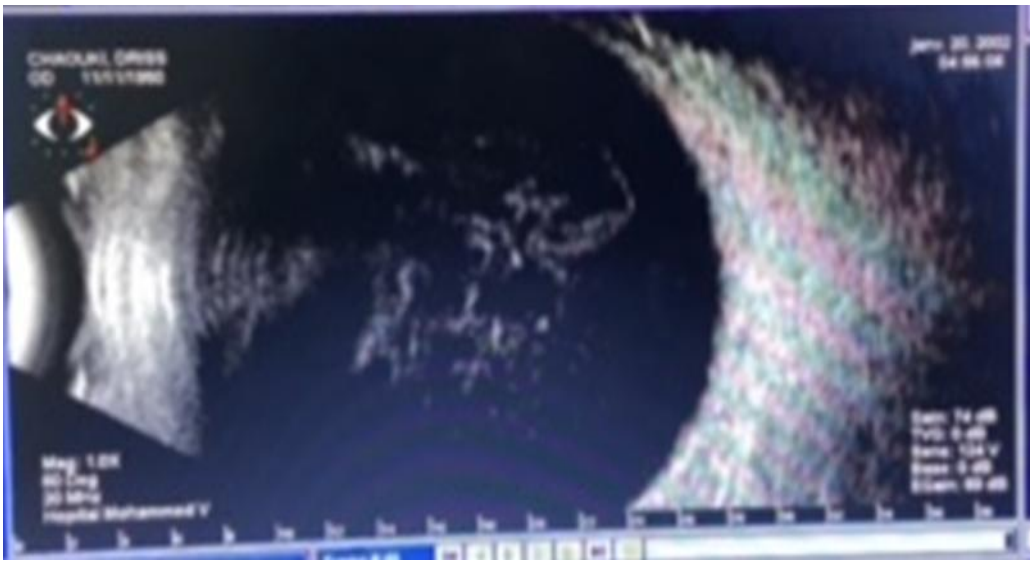

Figure 2:B-modeocularultrasoundshowing the presence of vitreousechoes.

An infectiousdiseaseworkuprevealed a CRP of 322 mg/l and a right lungabscess on chest CT.

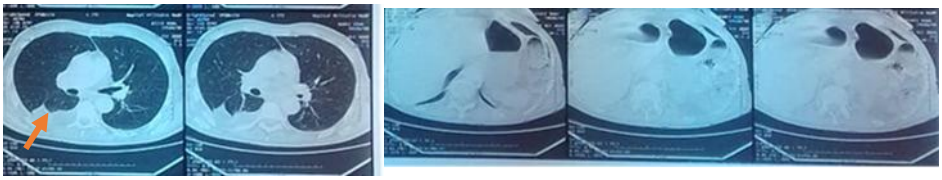

Figure 3:Chest CT scan showing a pulmonaryabscess of the right fowler (25mm) complicated by encystedpleurisy.

The diagnosis of endogenousendophthalmitiswasaccepted. A microbiological culture waslaunchedThe patient received triple systemicantibiotictherapy (imipenem + glycopeptide + levofloxacin), as well as local treatmentwithceftazidime + glycopeptide eye drops and a single IVT of the latter. Local corticosteroidswere not introduced as a secondarytreatment, as the patient'sgeneral condition deterioratedrapidly, preventingfurtherIVTs and vitrectomy. Drainage of the pleural fluidwas not indicatedbecauseitwasencysted

*.The patient died of septicshock.

Discussion

EndogenousendophthalmitisEE accounts for 2 to 8% of all endophthalmitis (1), and iscaused by hematogenousdissemination of an infectious agent, with passage through the blood-ocularbarriers. The eyeisconsidered to be a secondary site or septicmetastasis of a distant infection, ofteninvolving a deependocardial, renal or digestive focus, but the pulmonary focus israrelydescribed. Mainsignsinclude a sudden drop in vision associatedwithredness and pain in the eye. Clinically, there are signs of infection and endocular inflammation. Bacteriologicalsamples are positive in 80 to 96% of cases (2) .A smallnumber of EE cases are alsoreportedsecondary to occultsystemic infections, which are culture negativeRecently few case series have been reported in patients with COVID-19 possible reasonbeing immunosuppression (3)(4)(5) .Urgent treatmentisimperative, and isbased on the samemodalities as for exogenousendophthalmitis (6): triple systemicantibiotictherapywith good intraocularpenetration, combinedwithintravitrealantibiotic injections and fortifiedeye drops. Local or generalcorticosteroidtherapyisstartedsecondarily, once the infectious process has been controlled. Vitrectomymayalsobeindicated. Given the fragile nature of the patient's condition, the prognosisisoftenpoor, bothanatomically and functionally. Final visualacuityisunsatisfactory, and enucleationmayberequiredin 30% of cases (7).In a studyconducted to determinefactorsresulting in poorvisualoutcome, worse initial visualacuity and centrallylocatedlesionswerefound to beassociatedwithpoorvisualoutcomes . The samestudyshowedthatearlyvitrectomyprevented the development of retinaldetachment. This underscores the importance of detecting and promptlytreating the disease at early stages to preservevisualacuity (8)(9).

Conclusion

Endogenousendophthalmitisis a medical emergency whoseearlytreatmentdeterminesvisualprognosis. Untreated, it can spread rapidly, involving the orbit and central nervous system. Identifying the initial septic source and treatingitquickly and appropriately can improvefunctional and vital prognosis.

Consent

As per international standards or university standards, patient(s) written consent has been collected and preserved by the author(s).

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