EVEROLIMUS (AFINITOR®): A CASE OF STEATOSIS IN THE TREATMENT OF PANCREATIC NEUROENDOCRINE TUMORS

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Background

Everolimus (AFINITOR®) is an inhibitor of mTOR . At the City of Health and Science of Turin, Molinette Hospital, it was possible to detect an uncommon adverse drug reaction (ADR) in a patient treated with everolimus and lanreotide. The patient started lanreotide treatment on July 2013 and, after chemoembolization of hepatic nodules, everolimus 10mg/day was added. After 5 months, Nuclear Magnetic Resonance (NMR) showed massive steatosis (*Fig.1*). Treatment with everolimus was stopped.

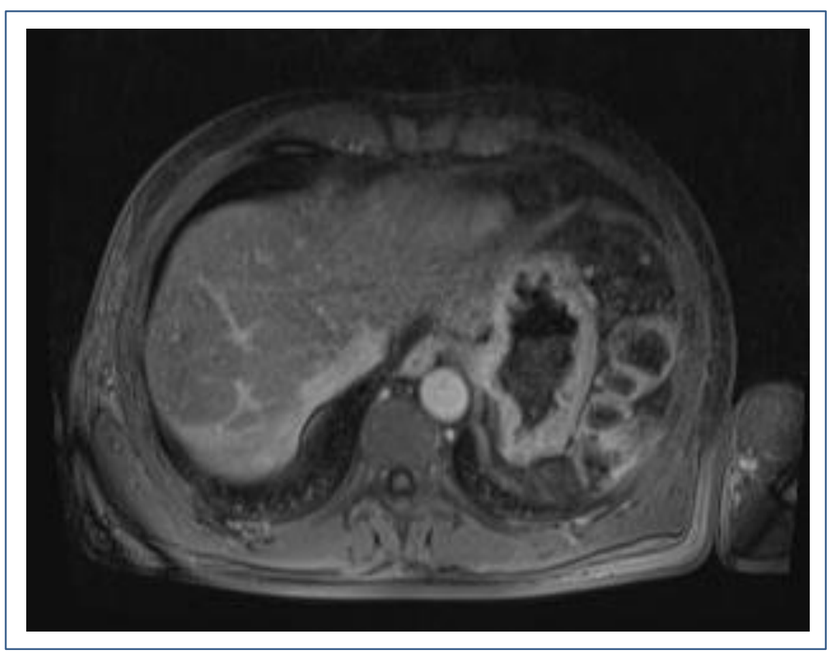

Fig.1: NMR showed massive steatosis involving the entire left hepatic lobe and part of the right lobe, with no signs of recurrence of neoplastic disease.

Purpose

To describe an uncommon adverse drug reaction to everolimus and lanreotide, review of literature and analysis of cases in National and European ADR Databases.

Material and methods

Analysis of Italian National Pharmacovigilance Network (I-NPN) and Eudravigilance databases and of PubMed and Embase databases were performed for reports of steatosis related to everolimus and lanreotide treatment. Naranjo algorithm was applied to our case.

Results

Analysis of literature databases retrieved a single case report of steatosis related to everolimus treatment *(Fig.2)*. No report was detected in I-NPN. Eudravigilance Database contains 5 cases of steatosis *(Fig.3)* possibly related to treatment with everolimus. According to the Naranjo algorythm, the causal link for our case appears to be “possible”.

Fig.2: Case report of steatosis


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CASE REPORT Open Access

Severe everolimus-induced steatohepatis: a case report

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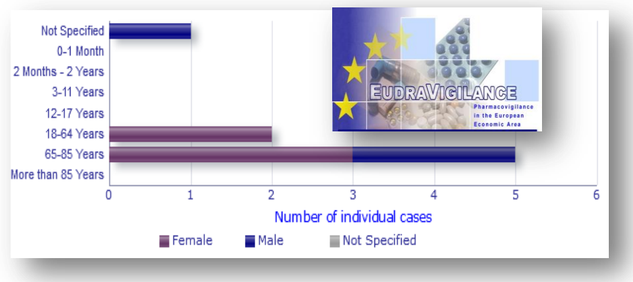
Fig.3: Eudravigilance Database with 5 cases of steatosis



Conclusions

Our case has a “possible” casual link according to Naranjo algorythm and the patient is now on NMR follow up. Treatment for his pancreatic neuroendocrine tumor is now based on lanreotide. The detection and follow up of this uncommon ADR has been possible thanks to the close and constant collaboration between Oncology Endocrinologists and Pharmacists and is an important contribution to outline the safety profile of everolimus in patients with pancreatic neuroendocrine tumors.

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