Background Ferric Carboxymaltose (Ferinject) is a commonly used intravenous iron preparation. Varying degrees of hypophosphataemia have been reported with Ferinject. This is thought to be due to FGF23 mediated renal phosphate wasting, which has been associated with osteomalacia. With only 2 case reports of symptomatic osteomalacia and insufficient fractures, clinical significance of Ferinject related hypophosphatemia in the overall population receiving it is unclear. Alternative intravenous iron preparation Iron III Isomaltoside (Monofer), has been reported to have a lower incidence of hypophosphatemia compared to Ferinject (Detlie, et. al., 2019) but some case series have reported a higher rate of hypersensitivity reactions (Mulder, et. al., 2018).

Aim To investigate the incidence of clinically significant hypophosphataemia in patients receiving Ferinject therapy based at day case unit at Nottingham University Hospitals.

Methods Electronic and paper medical records, including prescription charts, of patients receiving parenteral Ferinject between January 2017 and September 2019 were reviewed. Patients were identified from the local admission database. Data was collected including age, sex, and race, number of Ferinject infusions, Ferinject dose, eGFR, Vitamin D, parathyroid hormone (PTH) and phosphate levels before and after Ferinject infusion. Hospital admissions, symptoms related to hypophosphatemia and need for phosphate replacement was recorded. Normal lab phosphate levels were 0.80–1.50 mmol/L. Hypophosphatemia was defined as mild (0.65–0.79 mmol/L), moderate (0.32 to 0.64 mmol/L), and severe (<0.32 mmol/L).

Results We identified 400 (251 female and 149 male), patients who had received Ferinject during the study period. 56 (14%) and 51 (13%) patients had phosphate levels tested within 1 year before and after Ferinject respectively. Of these patients, 4 (7%) had hypophosphataemia prior to and, 17 (33%) {3 mild, 13 moderate and 1 severe} after Ferinject therapy. None of the 17 patients had symptoms related to hypophosphatemia. 2 patients with moderate hypophosphataemia incidentally found on routine bloods were admitted for phosphate replacement. 3 patients were admitted for a cause unrelated to hypophosphatemia.

Conclusions Our audit demonstrates that in our practice no acute serious adverse events were recorded due to Ferinject related hypophosphatemia. The long term impact of Ferinject-related hypophosphatemia requires larger prospective studies. This is of particular relevance to patients with pre-existing risk factors for bone metabolism disorders. It is our practice to correct Vitamin D deficiency where possible prior to administration of Ferinject. It has not been our practice to routinely measure serum phosphate level post infusion.

P242 RETROSPECTIVE REVIEW OF SIGNET RING CANCERS OF GI TRACT

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10.1136/gutjnl-2020-bsgcampus.316

Introduction Signet ring cell cancer (SRCC) is a rare and aggressive adenocarcinoma. The incidence of SRCC is rising worldwide. It is often missed during endoscopic examination due to its subtle appearance. SRCC is often widespread at the time of diagnosis making treatment challenging. The aim of this review is to assess the significance of early diagnosis of SRCC and its response to treatment.

Methods We collected data from University Hospitals of Leicester for all patients who had histology confirmed diagnosis of SRCC between June 2005 and April 2018. We compared patients who had early SRCC (localized to the primary site), patient who had delayed SRCC (nodal spread) and patients who had late SRCC (distant spread) at the time of diagnosis. We excluded all patients whose staging could not be confirmed.

Results 51 patients were diagnosed with SRCC. 3 patients died before staging, hence excluded. 32/48 (66%) were males. Peak incidence age was seen between 70 and 79 years. SRCC was of gastric origin in 19/48 patients (40%), oesophageal in 14/48 patients (29%), colonic in 11/48 patients (23%) and pancreatic in 4/48 patients (8%).

14/48 patients (29%) had early SRCC, 16/48 patients (33%) had delayed SRCC, and 18/48 patients (38%) had late disease at the time of diagnosis.

11/14 (79%) of early SRCC patients and 10/16 (63%) of delayed presentations had surgical resection and neoadjuvant chemotherapy with or without radiotherapy. The rest of the patients were offered palliative therapy.

The 2 years survival among early SRCC group was 9/14 (64%), compared to 6/16 (38%) for the delayed SRCC group, and 0/18 (0%) survived in late group. The 2 years survival was 100% in patients treated by surgical resection, neoadjuvant chemotherapy and radiotherapy. Patients with colonic SRCC had the highest mean survival (26.5 months) compared to patients with pancreatic SRCC who had the lowest mean survival (7 months).

Abstract P242 Figure 1

Conclusions Early diagnosis and effective treatment of SRCC is likely to significantly improve the patient survival. SRCC of colonic origin appears to have the best prognosis. Our data suggest that combined surgical resection and chemo-radiotherapy has the best outcome. However, larger prospective study is likely to help in better understanding of this challenging cancer.