SP4.1.2

Appendicitis during the COVID pandemic – Are we seeing more complicated presentations?

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Aims: Studies have suggested a decrease in emergency presentations of appendicitis during the COVID-pandemic along with a nationwide fall in non-COVID related presentations to A&E. We therefore hypothesised that those treated for appendicitis had later presentations resulting in increasing incidence of 'complicated appendicitis' and post-operative complications.

Methods: We retrospectively analysed all patients ≥ 16 years, undergoing emergency appendicectomy during 3-month period of UK national lockdown (pandemic cohort). Data was compared to the same period one year previously (pre-pandemic cohort). Primary endpoint was nature of appendicitis (uncomplicated or complicated). Secondary endpoints were operative approach, LOS and post-operative complications. Statistical analysis was performed using Fisher's Exact Test.

Results: A total of 31 patients (median age 35 years) underwent emergency appendicectomy in the pre-pandemic cohort and 30 patients in the pandemic group (median age 37). 9/31 (29%) and 18/30 (60%) were found to have complicated appendicitis in each group respectively ($p = 0.021$). Open procedures took place in 2/31 pre-pandemic, and 12/29 (4 of which were converted from laparoscopic procedures) in the pandemic cohort ($p = 0.002$). Median LOS was 2 in each group, though the

pandemic cohort had a much wider range (0-7 vs 0-25 days). Post-operative complications occurred in 1/31 and 5/30 patients respectively ($p = 0.104$) with 1 mortality within 30 days.

Conclusions: Despite overall volume and demographics of patients remaining the same, the COVID-19 pandemic has resulted in a statistically significant increase in complicated presentations of appendicitis to our hospital. Subsequently this has resulted in increasing incidence of open operations and post-operative complications.