who developed severe infections had lower immunoglobulin levels \((IgG < 6g/L, 36\% vs 6\%, p = 0.009)\), concomitant COPD \((21\% vs 3\%, p = 0.029)\), and lower rates of concomitant co-trimoxazole use \((7\% vs 44\%, p = 0.012)\) compared to patients not developing severe infections. Regression analysis of demographic, baseline blood markers and concomitant therapy data was performed to identify risk factors for developing severe infections (Table 1). Hypogammaglobulinaemia increased risk of infection \((OR = 8.782, 95\%CI = 1.194-64.605, p = 0.033)\), while co-trimoxazole decreased risk of infection \((OR = 0.096, 95\%CI = 0.009-0.996, p = 0.050)\).

Conclusion

The incidence of severe infections in patients with AAV receiving rituximab is significant. Our results support the monitoring of IgG levels to identify patients who may be more susceptible to infection, as well as the prescription of prophylactic co-trimoxazole to reduce overall severe infection risk.

Disclosure

F. Dernie: None.
N. Ahmad: None.
R. Luqmani: None.
J. David: None.

P204 AN EVALUATION OF A DAILY FAST-TRACK DIAGNOSTIC ULTRASOUND SERVICE FOR PATIENTS WITH SUSPECTED NEW ONSET GIANT CELL ARTERITIS DURING THE COVID-19 PANDEMIC

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Background/Aims

COVID-19 has reinforced the necessity for a faster and more accurate diagnostic pathway for suspected giant cell arteritis (GCA) patients so that unnecessary use of glucocorticoids can be avoided/minimised. During the COVID-19 pandemic, we replaced a twice weekly service with a 5-day per week ultrasound-based fast-track pathway within a secondary/tertiary hospital. The aim was to determine the impact of a more frequent diagnostic service for GCA, based on rapid access to ultrasound and clinical evaluation on the diagnostic certainty in evaluating patients with newly suspected GCA.

Methods

We reviewed records from patients referred between November 2019 to July 2020, comparing those seen during 17 weeks ‘pre-COVID’,
using the twice weekly service, with patients seen during 17 weeks of a 5 day per week service, termed ‘intra-COVID’. All patients underwent clinical evaluation and an eight-site ultrasound of temporal and axillary arteries. Those with hypoechoic, non-compressible peri-luminal arterial wall-thickening (or halo sign) were considered ultrasound ‘positive’.

**Results**

We audited 139 patients with suspected GCA (63 pre-COVID period vs 76 intra-COVID). A clinical diagnosis of GCA was made in 33.3% pre-COVID and 42% intra-COVID ($p=0.289$). Ultrasound sensitivity improved from 38.1% to 68.6% ($p=0.0001$), whilst specificity remained unchanged (100%, $p=0.0001$) for both periods. The proportion of patients seen within seven days of referral improved by 61.6% ($p<0.0001$), from 31.7% (pre-COVID) to 93.3% (intra-COVID). The median number of days from referral to assessment fell over four-fold, from 12.5 (interquartile range [IQR] = 8.25) to 3 (IQR = 3.5) respectively.

Median number of days of steroid exposure fell over seven-fold from 15 days (IQR = 11.25) pre-COVID to 2 days (IQR = 5) intra-COVID. Similar proportions in both periods were empirically commenced on steroids prior to assessment (71% vs 68% respectively, $p=0.700$). Mean number of ‘halos’ increased from 0.25 (standard deviation [SD] 1.19) pre-COVID to 3.05 (SD = 1.82) intra-COVID. The was no significant difference in the number of GCA visual complications ($p=0.894$). Ultrasound positivity was associated with fewer days of steroid exposure: the median number of days on steroids in negative versus positive scars was 16 and 5.5 (pre-COVID); compared to 2.5 and 1 days (intra-COVID). The proportion of patients without GCA who were empirically commenced on steroids reduced from 71.4% to 56.8% (pre-COVID vs intra-COVID, $p=0.158$) and median days steroid exposure reduced from 9.5 (IQR = 17.5) to 1 (IQR = 5), respectively.

**Conclusion**

A regular, daily ultrasound service for diagnosing suspected GCA significantly improved diagnostic accuracy and reduced unnecessary steroid exposure in patients who did not have GCA. The sensitivity of ultrasound improved by 30.5% and the delay from steroid exposure to diagnosis was reduced by 76%. An ultrasound-based daily fast-track service significantly improved the diagnostic certainty of suspected GCA, especially during the COVID-19 pandemic when availability of temporal artery biopsy was very limited.

**Disclosure**

J.P. White: None. G. Sallemi: None. B. Dhungana: None. S. Dubey: None. R.A. Luqmani: None.