P138   DEVELOPING A DIGITAL REMOTE ASSESSMENT FOR MONITORING RHEUMATOID ARTHRITIS DISEASE ACTIVITY

Francesca Donadoni[1], Letizia Gionfrida[1], Benjamin Clarke[2] and James Galloway[2]
[1]*Research and Development, Arthronica Ltd, London, UNITED KINGDOM,* [2]*Rheumatology, King's College London, London, UNITED KINGDOM*

Background/Aims

In an era of increasingly stretched health care resources, accompanied by pressures to deliver more care for people with long term conditions remotely, we need innovative solutions to measure disease activity. In the case of monitoring rheumatoid arthritis (RA), a robust method of capturing reliable Disease Activity Score (DAS-28) information remotely could reduce patient visits to hospitals and free up clinic space. Information would ideally be captured from a home setting by a patient. However, self-reporting of DAS-28 has limited reliability especially at moderate or high levels of disease activity. A mechanism for remotely ascertaining DAS-28 which is both accurate and precise would improve remote management for people living with RA.

Methods

We undertook a study to assess patient attitudes regarding a novel remote RA monitoring platform, which uses images and video

captured movements to estimate DAS-28. The study involved a semi-structured 30-minutes video interview. Participants were adults with RA living in the UK. The interviews focused on these key areas: i) an overview of their history with the condition, ii) familiarity with DAS-28, iii) relationship with the clinical team, iv) relationship with technology and telemedicine, v) feedback on the RA monitoring platform.

Results

Eleven subjects participated in the study. They reported a median disease duration of 11 years (range: 4 to 35), and all had experienced flares, with 10/11 familiar with the DAS-28 prior to the study interview. Since the start of the COVID-19 pandemic, most patients only had contact with clinicians or healthcare facilities over the phone, with only one patient having visited a hospital for a reason not directly related to RA, and one patient having no contact at all. Overall, patients expressed enthusiasm towards the RA monitoring platform and were confident that they would be able to use it at home. Access over the Internet was not perceived as a barrier, and the advantages of tracking disease progression regularly, sharing data with the consultant and saving time travelling to appointments far outweighed the disadvantages. Participants generally reported that they would most benefit from a blended interaction with the clinical team, combining face-to-face appointments with use of the platform at home rather than seeing the platform as a complete alternative to face-to-face assessment.

Conclusion

This study provides the first insight into the perception and acceptance of the RA monitoring platform in a small sample of RA patients. Results are positive, and support further evaluation of the platform. Evidence to understand how technology can improve the quality of telemedicine for people with RA is urgently needed as the pandemic continues.

Disclosure

F. Donadoni: None. **L. Gionfrida:** None. **B. Clarke:** None. **J. Galloway:** None.