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A Study of Post COVID Foot Arthralgia

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Abstract

Aim: To evaluate the reasons of post covid foot arthralgia & its relation to flat foot.

Objectives: To Evaluate and analyses the reasons for poly arthralgia in the foot in post covid Infected patients.

Introduction: About 15% of patients with COVID-19 present with arthralgia at some point, but not much is known about the nature or presentation of such rheumatic manifestations of this infection. However, it is well-known that viral infections are associated with acute joint inflammation and pain, including single joint involvement with viruses such as the chikungunya virus, hepatitis B virus, hepatitis C virus, parvo-virus, Epstein-Barr virus, and HIV.

Materials & Methods: The analysis was carried out in NRI General Hospital & Orthocare, vijayawada from May 2020 to December 2020. The Total Number of Cases reported & analysed were 12 with the age ranges between 30-80 years.8 were female and 4 were male patients.

Results: 12 patients came to OPD with post covid foot arthralgia. Out of 12 patients, 8 (66.66%) patients were diagnosed with medial longitudinal arch loss and 4 (33.33%) patients with normal arch. All the patients were treated with analgesics for 2 weeks, oral low dose steroid for 1 month and medial longitudinal arch support. Patients showed subsidence in pain and normal values of inflammatory markers. Post covid foot arthralgia was not associated with the antibodies detected.

Conclusion: We conclude from our study that analgesics, oral low dose steroid, medial longitudinal arch support can be considered as rational method of treating post covid foot arthralgia.

Introduction

COVID-19 is an acute infectious disease caused by severe acute respiratory syndrome corona virus-2 (SARS-CoV-2),primarily affecting lungs leading to excessive and uncontrolled immune activation, cytokine response on alveolar structure, triggering severe inflammatory pathways. The recent outbreak in India is the result of global pandemic which were first reported as cluster of pneumonia from Wuhan, China in 2019. The report of post infection complication including foot arthralgia with intermittent or continuous foot pain experienced during recovery [1]. The treatment plans consisting of supportive(medial longitudinal arch support) and short course of symptomatic care were found to be beneficial for alleviation of symptoms, though specific treatment modalities did not exist. About 15% of patients with COVID-19 present with arthralgia at some point, but not much is known about the nature or presentation of such rheumatic manifestations of this infection. However, it is well-known that viral infections are associated with acute joint inflammation and pain, including single joint involvement with viruses such as the Chikungunya virus, Hepatitis B virus, Hepatitis C virus, Parvo- virus B-19, Epstein-Barr virus, and HIV. A follow up study of Covid-19 consequences of foot arthralgia was evaluated in 12 patients [2]. They presented with foot pain, swelling of foot, elevated inflammatory markers(Erythrocyte sedimentation rate and C-reactive protein) and no consideration of anti SARS CoV-2 IgG antibodies. Antibodies were evaluated for understanding of disease, effects on treatment with foot arthralgia (Figure 1).

Aim

To evaluate the reasons of post covid foot arthralgia & its relation to flat foot.

Objective

To evaluate and analyze the reasons for poly arthralgia in the foot in post covid infected patients.

Materials & Methods

NRI General Hospital, Chinakakani was designated as the dedicated Covid-19 treatment hospital by the Government of Andhra Pradesh. With the tertiary care facilities available, we treated about 12,500 Covid-19 patients during this pandemic [3]. A post covid care Outpatient Department was specifically started by our hospital as many patients were suffering from multiple complications following recovery from Covid-19 infection. The analysis was Carried Out in NRI General Hospital & Orthocare, Vijayawada From May 2020 to December 2020. The total number of cases reported & analyzed were 12 with the age ranges between 30-80 years. 8 were female and 4 were male patients (Figures 2 & 3).

Figure 1: Foot arthralgia.

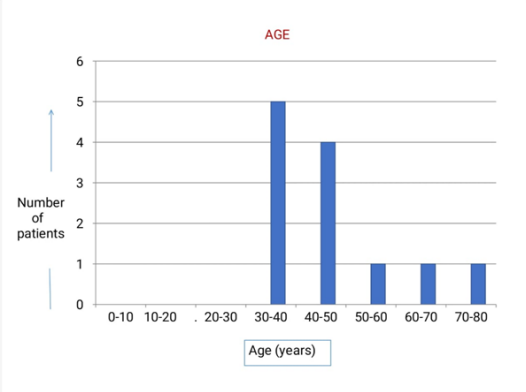

Figure 2:

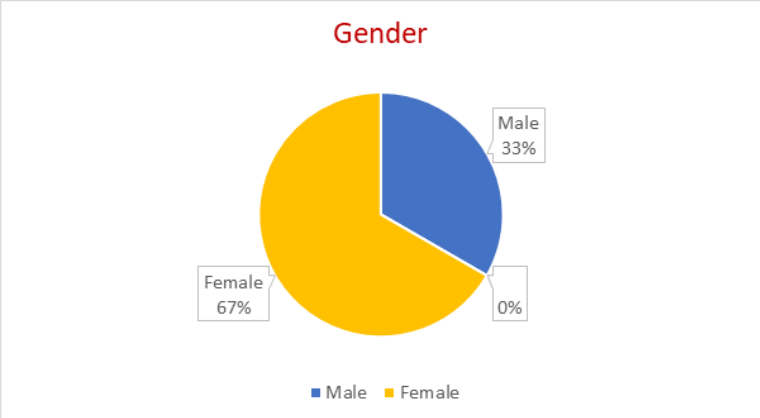

Figure 3

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Inclusion Criteria

Males and females of age group 30-80 years. Patients who give consent for antibodies detection.

Exclusion Criteria

Patients who have all other Musculo skeletal manifestations like gouty arthritis and rheumatoid arthritis. Patients who have confounding comorbid conditions.

Treatment

All the 12 patients were treated with analgesics(CELECOXIB 200mg BD for 2 weeks) and tapering dose of low dose oral steroid (METHYL PREDNISOLONE for 1 month). Out of 12, 8 patients did not have significant pain relief and they were treated with medial longitudinal arch support. Follow up was done at 1,3 and 6 months.

Results

12 patients came to OPD with post covid foot arthralgia. Out of 12 patients, 8 (66.66%) patients were diagnosed with medial longitudinal arch loss and 4 (33.33%) patients with normal arch. All the patients were treated with analgesics for 2 weeks, oral low dose steroid for 1 month and medial longitudinal arch support. Patients showed subsidence in pain and normal values of inflammatory markers. Post covid foot arthralgia was not associated with the antibodies detected.

Discussion

12 patients visited to Outpatient Department with post covid foot arthralgia. Since Covid-19 is a new and emerging pandemic where there is no scientific evidence regarding the pathogenesis, transmission and management of this Covid-19 infection. In view of ongoing pandemic circumstances of Covid-19,physical examination was not feasible, thus based on the history, analgesics(CELECOXIB 200mg BD for 2 weeks) and tapering dose of low dose oral steroid (METHYL PREDNISOLONE for 1 month) were advised to all 12 patients.

Out of 12, 8 patients did not have significant pain relief and hence local examination was done. The patients were found to have developed loss of medial longitudinal arch, and these 8 patients were treated with medial longitudinal arch support. All of them had good pain relief. Out of 12 patients,7 patients developed covid antibodies whereas 5 patients did not show covid antibodies in the serum [4-6]. There is no relation between the development of antibodies and post covid foot arthralgia. Patients had no consideration of antibodies, pain and inflammatory markers regressed to normal after 6 months of follow up (Figures 4-7).

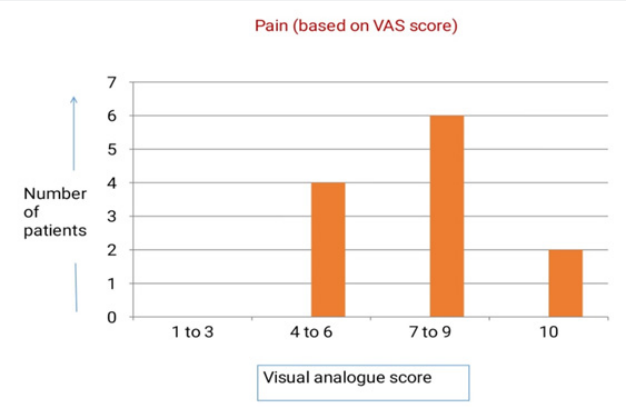

Figure 4

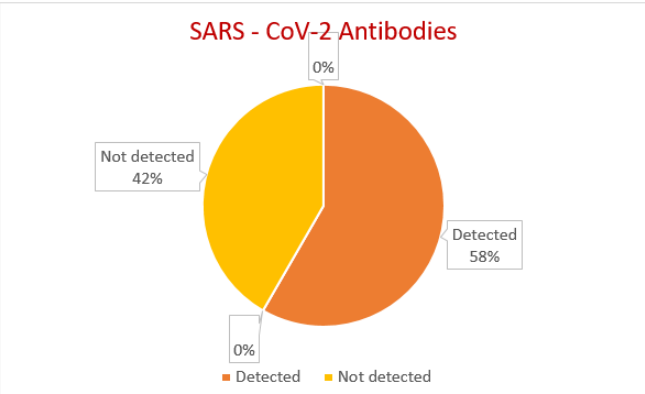

Figure 5

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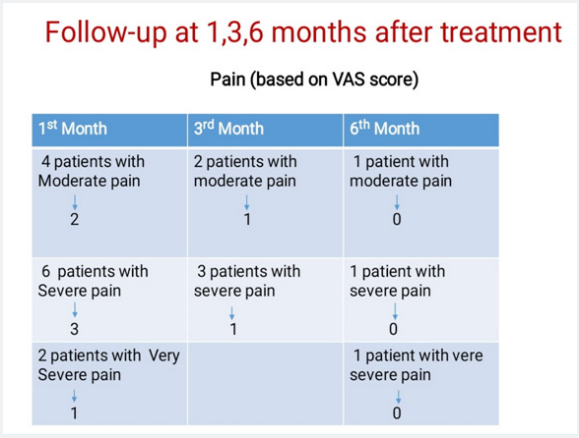

Figure 6

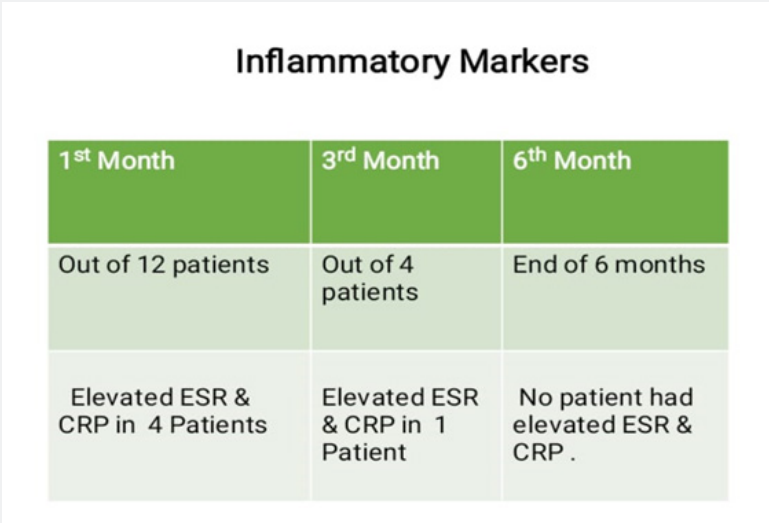

Figure 7

Conclusion

We conclude from our study that analgesics, oral low dose steroid, medial longitudinal arch support can be considered as rational method of treating post covid foot arthralgia.

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