

Challenges in the Management of Clubfoot in COVID-19 Pandemic

Sir,

The second wave of COVID-19 disease caused by SARS-CoV-2 has taken a huge toll with total positive cases of around 163 million globally with more than 3 million deaths. India has been severely affected by this deadly pandemic with more than 25 million positive cases, as on 18th May, 2021 (WHO Coronavirus [COVID-19] Dashboard). Besides morbidity and mortality due to the viral disease itself, this pandemic has adversely affected patients with other elective ailments, including paediatric musculoskeletal disorders and deformities. Management of such deformities, especially clubfoot, may not have enjoyed the same priority as other acute conditions like, orthopaedic emergencies, bone malignancies, musculoskeletal infections and fractures.¹

Treatment of clubfoot involves multi-disciplinary approach and needs a lot of patience from caretakers and treating physicians, considering the need for lengthy follow-up and multiple visits in various stages of treatment.² The majority of clubfoot cases (80%) are found in low- and middle-income countries.³ We have the experience of working in a dedicated specialty clinic for clubfoot patients at a tertiary care centre with more than 100 enrolments of patients, who visit regularly at weekly basis and are evaluated by experienced senior surgeons at each follow-up. The lockdown phase of the current pandemic, especially the second wave, has disorganised the whole OPD system. Parents are more concerned about the spread of communicable diseases than progression of musculoskeletal deformity. This concern stems from the fear of mortality with COVID-19 infection. Moreover, some of these children have some syndromic associations which put them at a higher risk of infection and its complications.²

Senior orthopaedic surgeons may discourage patients and curtail patient interaction for non-emergency conditions as they constitute a high-risk group for getting COVID-19 infection because of their age. This may sometimes lead to under-evaluation of the original status of disease or its progression by their younger colleagues. Disease progression and prognosis of clubfoot management depends upon early intervention in the form of Ponseti manipulation and serial casting methods.^{2,3} An increase in severity of deformities and surge of defaulters and relapsed cases may be seen among patients who have not attended these clinics for more than six months. The late presenting cases or cases with fixed deformities or relapses, which need surgeries, were mostly postponed or deferred during the lockdowns in view of active cases of COVID-19 in the

same territories of hospital with deprived availability of resources, including PPE kits, admission facility, caretakers and medical staff.¹

Telemedicine is an efficient option to manage chronic non-serious illnesses in such circumstances; but its impact remains insignificant on management of these deformities, especially the new cases or uncorrected feet. It is quite difficult to demonstrate treatment manoeuvres/techniques to caretakers of children in Indian context, resulting in deterioration in the status of disease. It generates curiosity about alternative modes of treatment during these difficult times. There are a number of unsolved questions regarding enhanced morbidities and disabilities of these growing children in near future. A huge psycho-social impact will be imposed on parents, who are helpless at their prospects and already have uncertainty and apprehension regarding treatment and prognosis of deformed feet.⁴

One of the plausible solutions to such crises is the development of dedicated clubfoot clinics which are kept COVID-free, on similar lines as cancer hospitals.⁵ Not only would this help in ensuring timely management of this disabling condition for the future generations of the country, it will also decrease the economic impact arising as a result of accumulation of such neglected cases. Moreover, increasing the follow-up interval to two-three weeks from one week may also decrease the patient-attendance in such dedicated clinics.

CONFLICT OF INTEREST:

The authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:

PKS: Conceptualised the work and drafted the manuscript.

VT: Conceptualised the work and revised the manuscript.

All authors approved the final version of the manuscript.

REFERENCES

1. Neradi D, Hooda A, Shetty A, Kumar D, Salaria AK, Goni V. Management of orthopaedic patients during COVID-19 pandemic in India: A guide. *Indian J Orthop* 2020; **54**(3): 402-7. doi: 10.1007/s43465-020-00122-6.
2. Ponseti International. <http://www.ponseti.info/publications--resources.html>. Accessed 18 May 2021.
3. Ansar A, Rahman AE, Romero L, Haider MR, Rahman MM, Moinuddin M, et al. Systematic review and meta-analysis of global birth prevalence of clubfoot: A study protocol. *BMJ Open* 2018; **8**(3):e019246. doi: 10.1136/bmjopen-2017-019246.
4. Coppola G, Costantini A, Tedone R, Pasquale S, Elia L, Barbaro MF, et al. The impact of the baby's congenital malformation on the mother's psychological well-being: An empirical contribution on the clubfoot. *J Pediatr Orthop* 2012; **32**(5):521-6. doi: 10.1097/BPO.0b013e318257640c.
5. Restivo A, De Luca R, Spolverato G, Delrio P, Lorenzon L, D'Ugo D, et al. The need of COVID19 free hospitals to maintain cancer care. *Eur J Surg Oncol* 2020; **46**(6):1186-7. doi: 10.1016/j.ejso.2020.04.003.

Pankaj Kumar Sharma¹ and Vivek Tiwari²

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¹Department of Orthopaedics, All India Institute of Medical
Sciences, Bathinda, Punjab, India

²Department of Orthopaedics, All India Institute of Medical
Sciences, Nagpur, Maharashtra, India
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Correspondence to: Dr. Vivek Tiwari, Department of Orthopaedics, All India Institute of Medical Sciences, Nagpur, Maharashtra, India

E-mail: vivek_tiwari50@yahoo.com

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Received: July 11, 2021; Revised: October 12, 2021;

Accepted: October 13, 2021

DOI: <https://doi.org/10.29271/jcpsp.2021.JCPSPCR.CR161>

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