

## Case Report

# 'WhatsApp' as an adjunct to home based pin tract care: a case report

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### ABSTRACT

Mobile based technology can be a cheap and handy adjunct to a home based programme for managing pin tract care in chronic orthopaedic cases. The text message and image based mobile platforms may serve as an evaluation tool relieving patient of agony of long and painful commutes on simple health issues like wound dressings. A case report depicting versatility of the idea with regard to its efficacy in clinical scenario is presented here.

**Keywords:** External fixation, Mobile applications, Wound infection

### INTRODUCTION

External fixation is an integral procedure in orthopaedic surgery with special consideration to the damage control, definitive fixation or deformity correction. Pin tract infection is a potential complication inherent to the use of these devices. A meticulous technique and good construct is as important to check this menace as is the general condition of the bones and the patient as whole. Regular follow up often entails a protracted long course of treatment including home based cleaning and dressing programme, after due explanation and demonstration of the pin care technique. A good assistance in monitoring of the status of wound can be assessed in certain cases with basic picture based smart phone applications.

### CASE REPORT

A study of a 34 year old male patient who was followed up on WhatsApp mobile application platform about the current pin tract condition and relevant solutions. The case had Gustilo and Anderson type one comminuted fracture of distal radius. The patient was given choices of treatment and chose distractor as an external fixation device for the fracture. The Distractor is like a mini-external fixator that

spans the fracture site and helps maintain reduction through ligamentotaxis. The patient went home after learning careful pin tract dressing and care. He was explained the method of taking picture along with sending and seeking consultation through WhatsApp beforehand as an inpatient. The objective was to overview his home based pin tract care till the treatment period aiming for successful and uneventful fixator removal and further management. The patient was a quick learner and used to dress the wound bi-weekly as advised and assess the pin tracts and send a best quality pictures before and after each dressing. The received pictures were evaluated by the authors for the evaluation of wound vis a vis the guidance and further instructions. The assessment and consultation went uneventful as was the case with wound healing. The WhatsApp proved to be very a user friendly application for sending pictures of the pin tract wound and as aid in evaluating its healing status.

The results were encouraging to recommend its use for selective for cases who could not visit for the follow up regularly because of personal issues. The patient when reviewed after a period of three, six and twelve week showed improved results and uneventful healing of the wound.

The system may help substantial number of cases in resource crunch healthcare system like India in geographic regions not friendly for comfortable and frequent hospital visit. The case got free and valuable consultation while saving money and hassels of frequent follow-ups.

## DISCUSSION

The use of multimedia messaging system as communication tool has been used by specialities like plastic and reconstructive department in the past.<sup>1,2</sup> Distance consultation with camera phone has been a promising and handy tool in patient care.<sup>3</sup> This has been tried and tested as a system for remote assessment of wound status in real time as well.<sup>4</sup> The technology has been associated with improved efficiency albeit with some inherent disadvantages. The inter-communication options need further studies to evaluate their efficacy with regard to establishment of their use as assistance tool.<sup>5</sup>

The SMS (Short Messaging Services) based technology appears to be a helping hand in various arenas of patient care if used innovatively and judiciously.<sup>6</sup> Above all the technology should be secure and respecting patient confidentiality.<sup>7</sup>

The overall effectiveness of the app and its efficacy can not be ascertained out of this small study but some of these patients may benefit from a monitoring aspect of the technique.

## CONCLUSION

The judicious use of mobile based messaging system in selected cases can prove to be cost effective adjunct to home based pin tract care.

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