

VII. RESULT

The polymer (polypropylene) casting of fracture aid is produced in such a way to suit each patient as it is designed to their size and dimension. The polymer cast will be a web like structure which makes skin respiration and ventilation, thus it avoid skin rashes. The polypropylene is an X-ray translucent material, so the patient can undergo Radiation diagnosis without removing the aid. The 3D printer fabricates the aid within 2 – 3 hours and thus it reduces waiting time of patient. Hence, the 3D printed fracture aid cast replaces the function and the support as provided by the conventional POP. The table shows the advantage of 3D printing over conventional technique:

VIII. CONCLUSION

Thus by using the polypropylene material, a supportive device is designed which helps the injured bone to be in place without movement during the healing process. Here the rapid prototyping (3D printing) technique is used as it has reasonable advantages when compared to the conventional technique. This fracture aid is designed in turn to overcome the inconvenience faced by the patient and makes them feel comfortable during the healing period of injury and to reduce the usage duration of P.O.P, and to provide a cost effective fracture aid.

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