AUTOCLAVABLE SILICONE MOULDS FOR ANTIBIOTIC BEADS: A NOVEL IDEA

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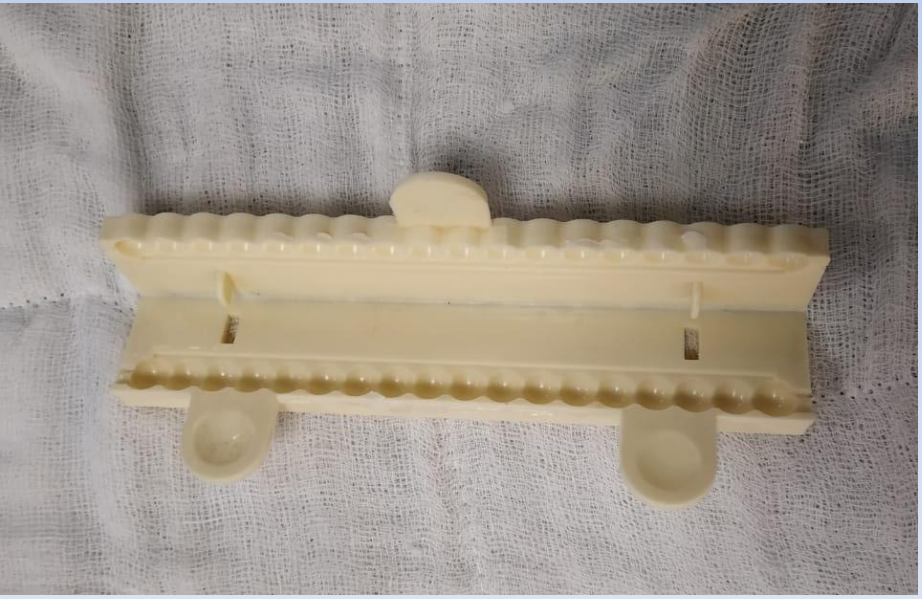


INTRODUCTION

- Antibiotic beads are traditionally made by hand in the OR.
- **Disadvantages-**

1) Time consuming and cumbersome
2) Inefficient use of resources
3) Bead size and shape is inconsistent
4) Antibiotic not uniformly distributed
5) Beads not well attached to the wire

- Instead we have used heat stable silicone moulds.

METHOD

We use commercially available antibiotic impregnated bone cement(PMMA).

- Mix the antibiotic impregnated cement powder(polymer) with the desired amount of another antibiotic powder if needed and then add the prepackaged liquid (monomer)
- Mixed until a doughy viscosity is achieved.
- Paste is placed into the moulds with

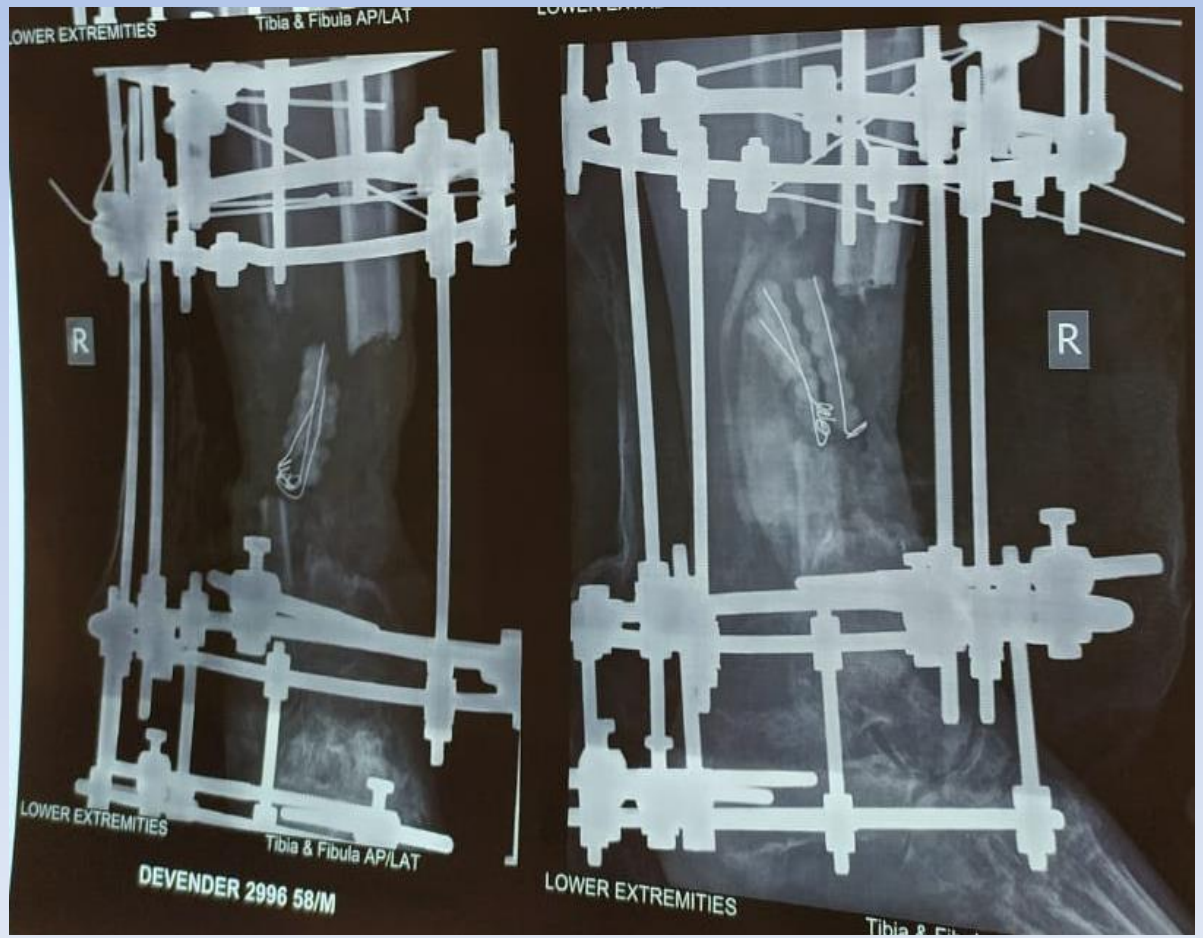
SS wire placed in the given slots.

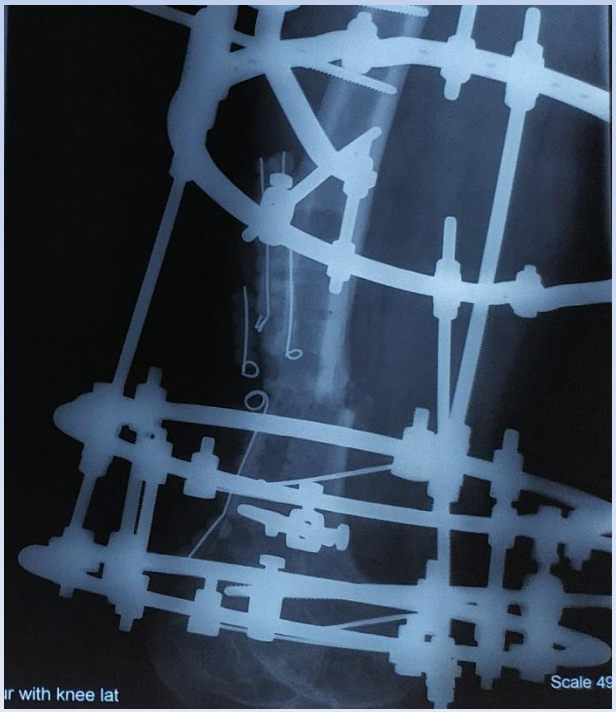
- Excess cement is removed.
- Pressure is applied over the moulds.
- This helps the cement to uniformly fill the

pits and squeezes the excess cement out.

- Moulds are allowed to set for 10-15min.
- The beads are subsequently taken out.

Can be used in various conditions like chronic osteomyelitis, infected non-unions, infected arthroplasty and prophylaxis of open fractures and also for dead space management.





CONCLUSION

- Beads are of better quality and consistency.
- Uniform, symmetrical and of even surface area.
- More firmly attached to the wire.
- Bead size is smaller (appropriate for the majority of wounds).
- These moulds can be re-used again and again after autoclaving them(more cost efficient).