



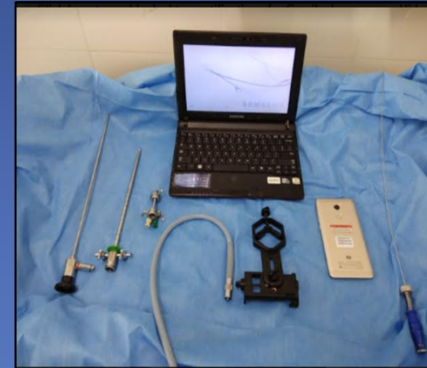
MP04-01- Cystoscopic Stent Removal Using Smartphone

Dr. Shanky Singh

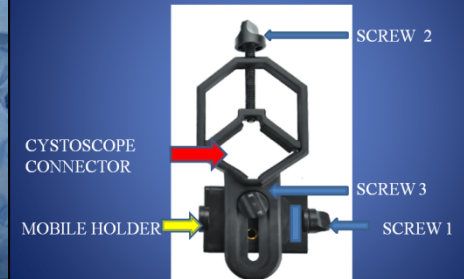
INTRODUCTION AND OBJECTIVE

- DJ stent removal can be difficult when the instruments, equipment and machines for video cystoscopy are expensive and not readily available in some hospitals.
- To demonstrate a docking system that transforms any Android, Apple or Windows smartphone into mobile endoscopic viewing system.

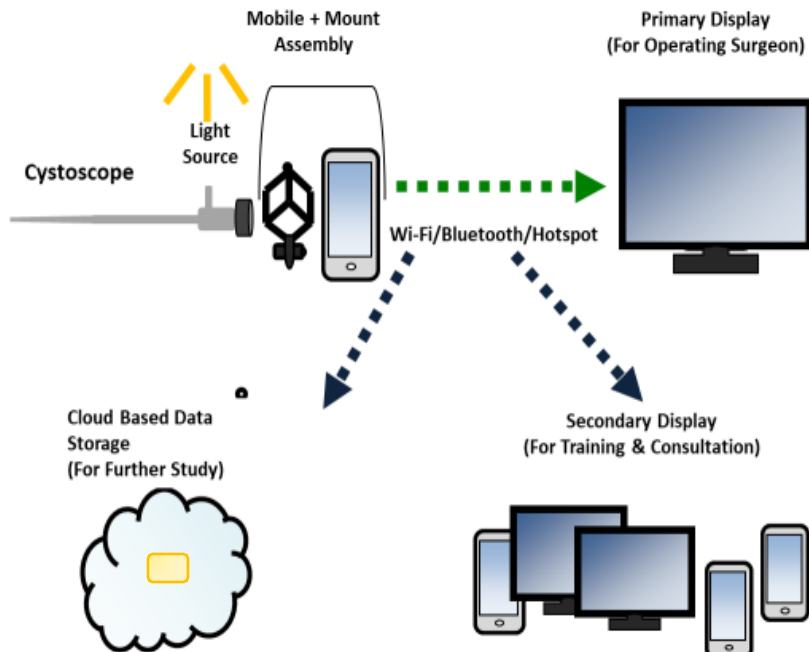
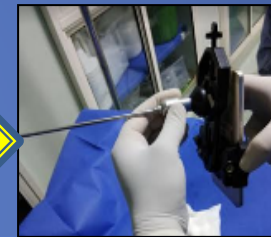
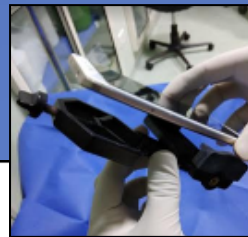
MATERIAL & METHODS



SMARTPHONE ADAPTER MOUNT



CONNECTING SMARTPHONE & CYSTOSCOPE



| SR.NO | STENT | PATIENTS |
|-------|------------|----------|
| 1 | BILATERAL | FOUR |
| 2 | UNILATERAL | SIX |

RESULTS

COLOR RESOLUTION

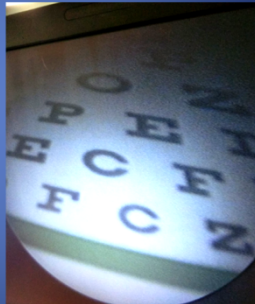


Image resolution



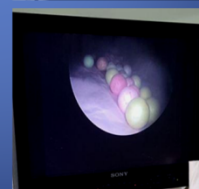
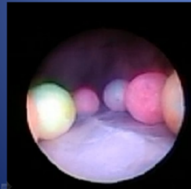
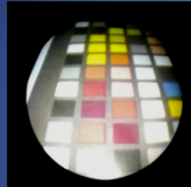
SMARTPHONE

STANDARD CAMERA



SMARTPHONE

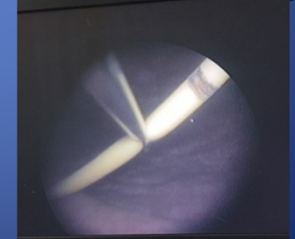
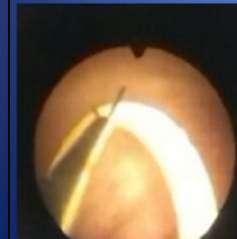
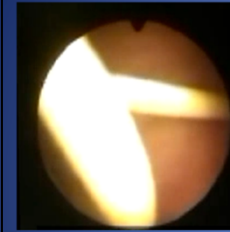
STANDARD CAMERA



FINAL IMAGE

SMARTPHONE

STANDARD CAMERA



FAVORABLE ASPECTS

- Fingertip functionality
- Replace the camera and video receiver box
- Data can be stored/Image-recorded & shared
- Full portability- A laptop & portable LED light source
- Promote telemedicine endoscopy- Remote rural area with urban experts
- Emergency department and IPD for general diagnostic procedures
- Decrease patient pain
- Education & Training
- **Low cost**

LIMITATIONS

- Does not couple with the latest Digital Endoscope
- Initial Settings - Tedious & Time consuming
- Procedure sterility
- Delay & Image lag

❖ CONCLUSION

Amalgamation of evolving consumer mobile technology with endoscopes may prove to be a critical step in future, providing the benefits of endoscopically driven healthcare to persons in all communities across the globe.