Deep Brain Stimulator Related Infections: A Case Series

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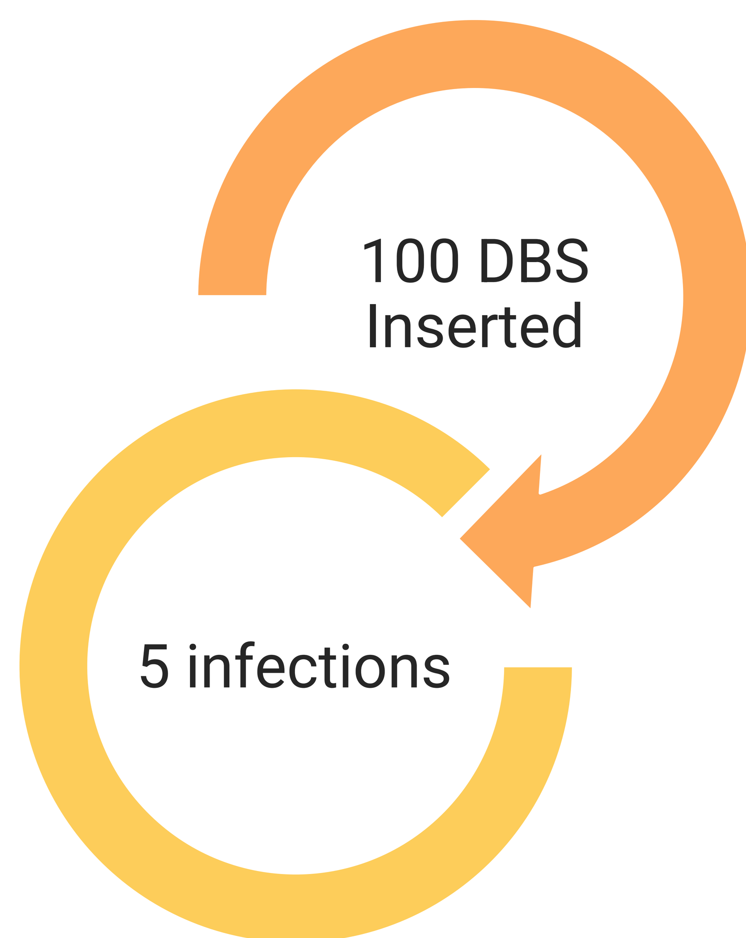
Deep brain stimulators (DBS) have been approved for treatment of movement disorders such as Parkinson's disease, dystonia and essential tremor since the 1990s, with their use becoming increasingly more widespread. It involves the surgical placement of electrodes adjacent to deep structures within the brain, with connection to a pulse generator which is implanted subcutaneously within the chest wall. Infection is a recognised complication of DBS, the literature reports variable rates from 2-10%. Management has traditionally been with systemic antibiotics, debridement and explanting of devices if possible.

METHODS

We retrospectively reviewed all cases of patients who attended MMUH Infectious Diseases clinic for management of deep brain stimulator related infections.

RESULTS



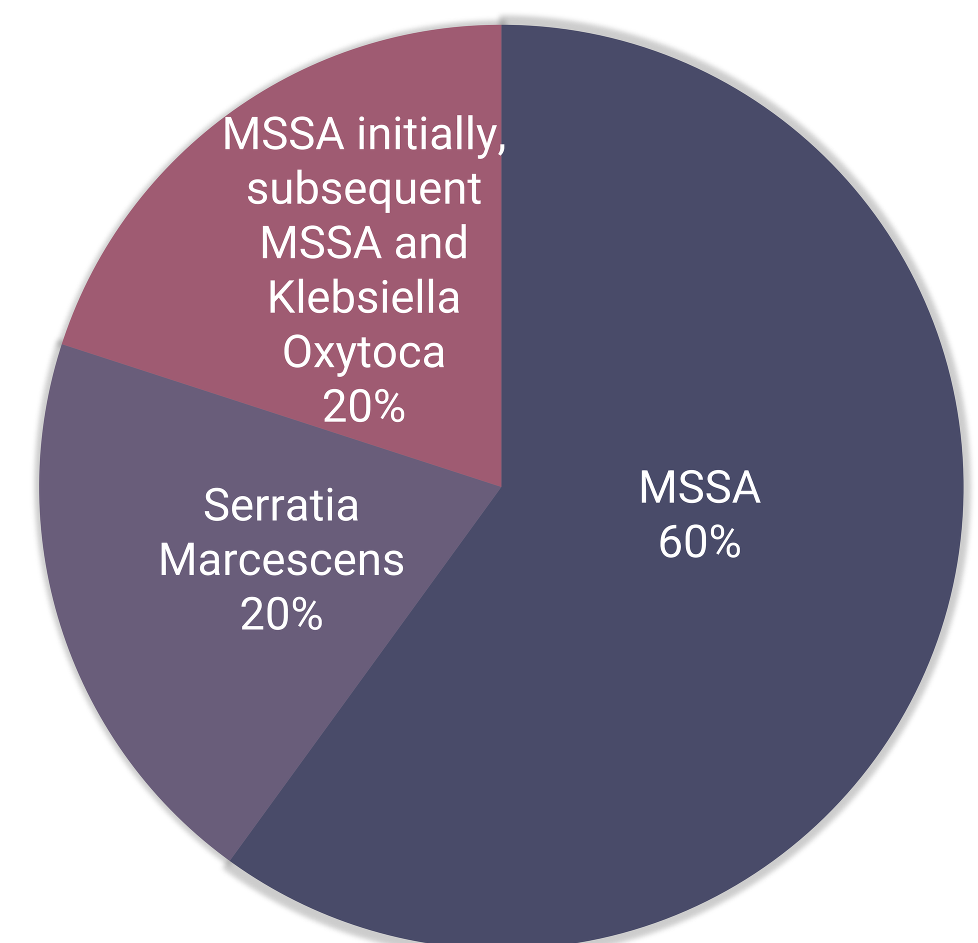
2 women and 3 men

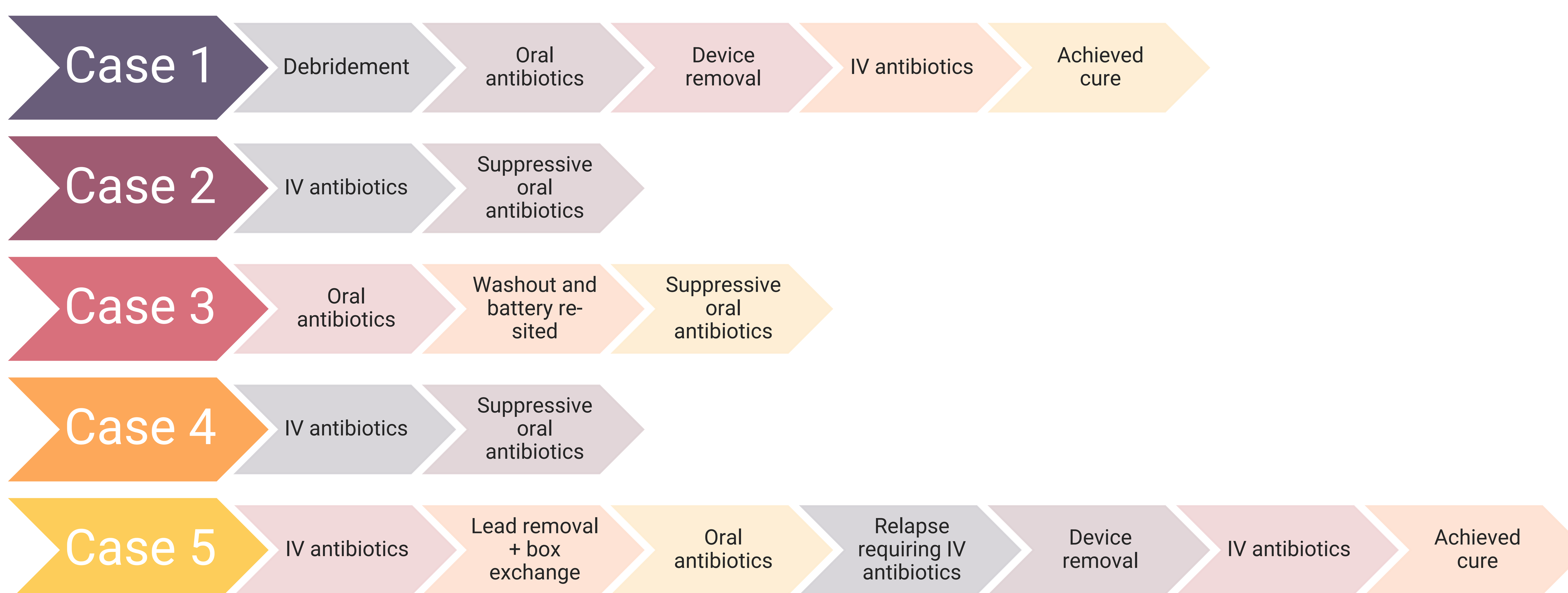
Mean age 68 (range 62 – 78)

3 presented within 2 weeks of implantation

2 within 2 months of implantation

MICROBIOLOGY





CONCLUSION

This retrospective review highlights the variability in presentation and treatment approaches with DBS infections. Patients who had retention of their device required suppressive therapy, with cure only achieved with device removal. Further research is needed to guide optimal management strategies and whether there is benefit to early use of intravenous antibiotic therapy.

REFERENCES

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