

Background

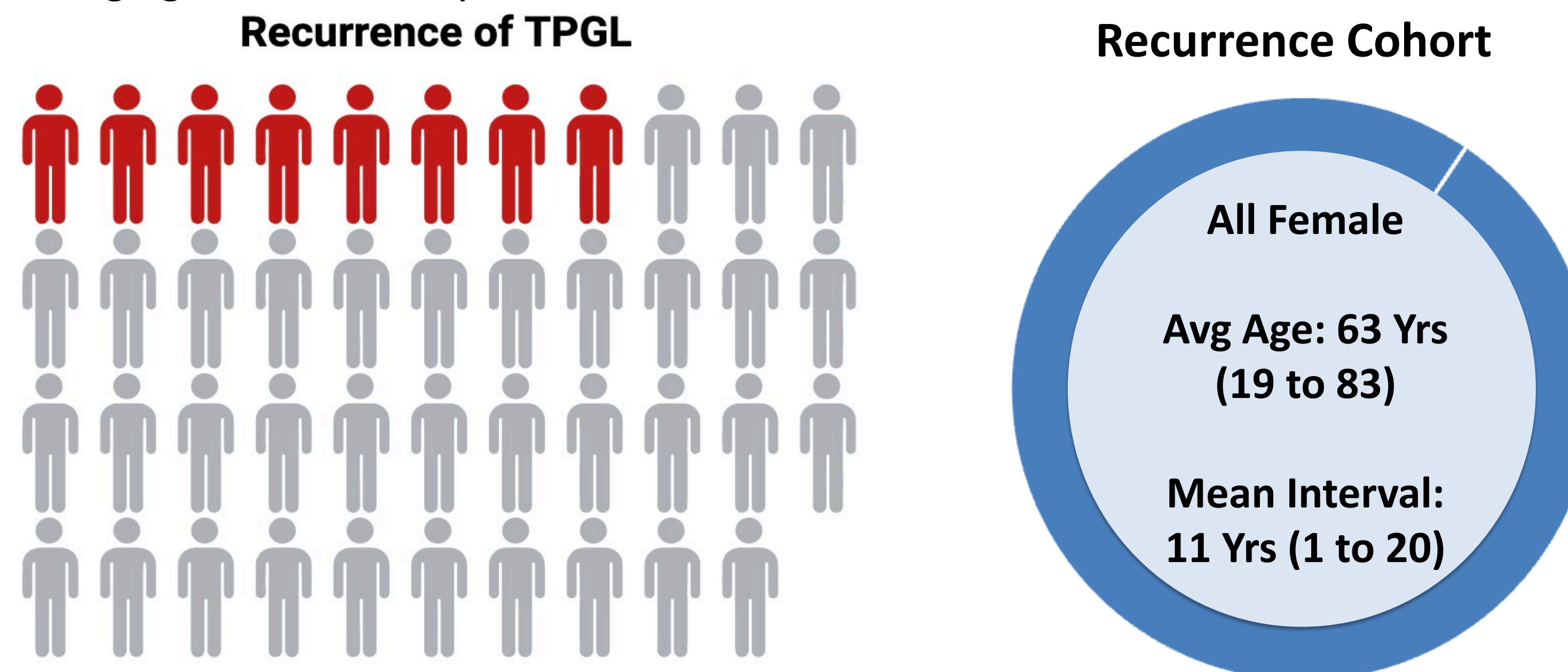
- Tympanic paragangliomas (TPGLs) are rare and mostly slow growing neuroendocrine tumors of the lateral skull base. These tumors arise from neural crest-derived cell clusters.
- Long term follow-up for TPGLs is mixed, with mean follow up time ranging from 3-5 years.
- Recurrences rates of 0-15% have been reported
- We aimed to evaluate institutional data to better understand the long-term risk of recurrence and treatment outcomes for patients with TPGLs.

Methods

- We performed a retrospective analysis of patients who received care for tympanic PGL at the University of Pennsylvania hospitals between 2009-2025.
- Patient information collected included Tympanic and non-tympanic PGLs characteristics as well as relevant clinical information such as disease history, family history, imaging, genetic and metabolic testing, treatment, and outcome.
- Treatment included surgery, radiation, and/or observation for definitive and salvage therapy.

Results

- Between 2008-2024, a total of 43 patients were diagnosed with tympanic PGLs at the author's institution. 40 patients (91%) were female. The average age of diagnosis was 51.5 years, ranging from 18 to 76 years old.



- 8 patients (18%) developed a recurrence of TPGL. The mean interval of recurrence was 11 years, with a range of 1 to 20 years. The average age of recurrence was 62.5 years (ranging from 19 to 83 years.) All patients with recurrence were female.
- 1 patient with a recurrent TPGL presented with a concurrent adrenal PGL.
- All patients with recurrence underwent surgical resection for their primary tympanic PGL and 6 patients (75%) underwent a resection for their recurrent tympanic PGL.
- 4 patients (50%) underwent genetic testing revealing 1 case of an SDHD mutation.
- 2 recurrent tumors (25%) were identified with elevated metanephrines or catecholamines.

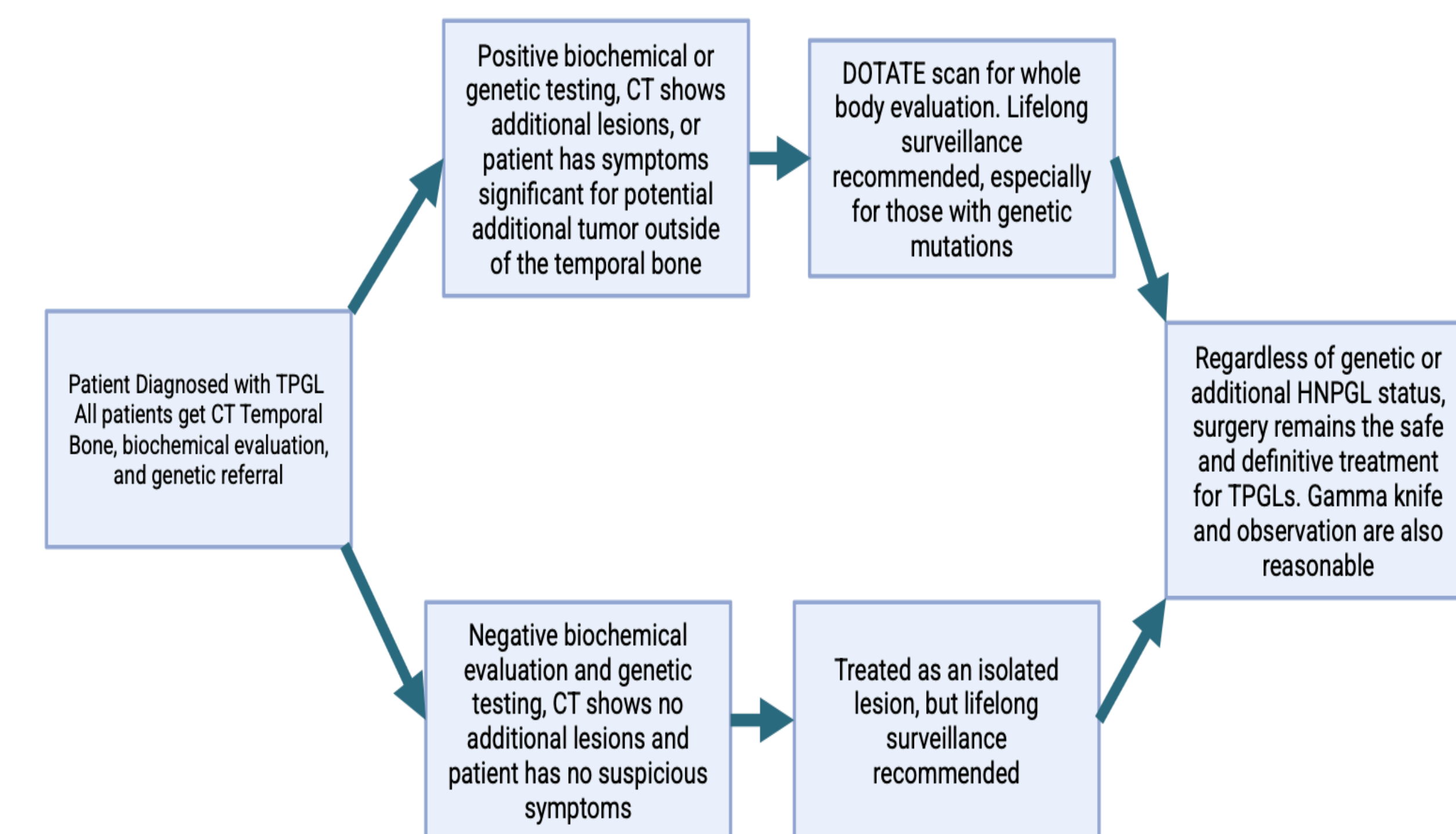
Secondary Surgical Resection



Positive Genetic/Metabolic Findings



Results



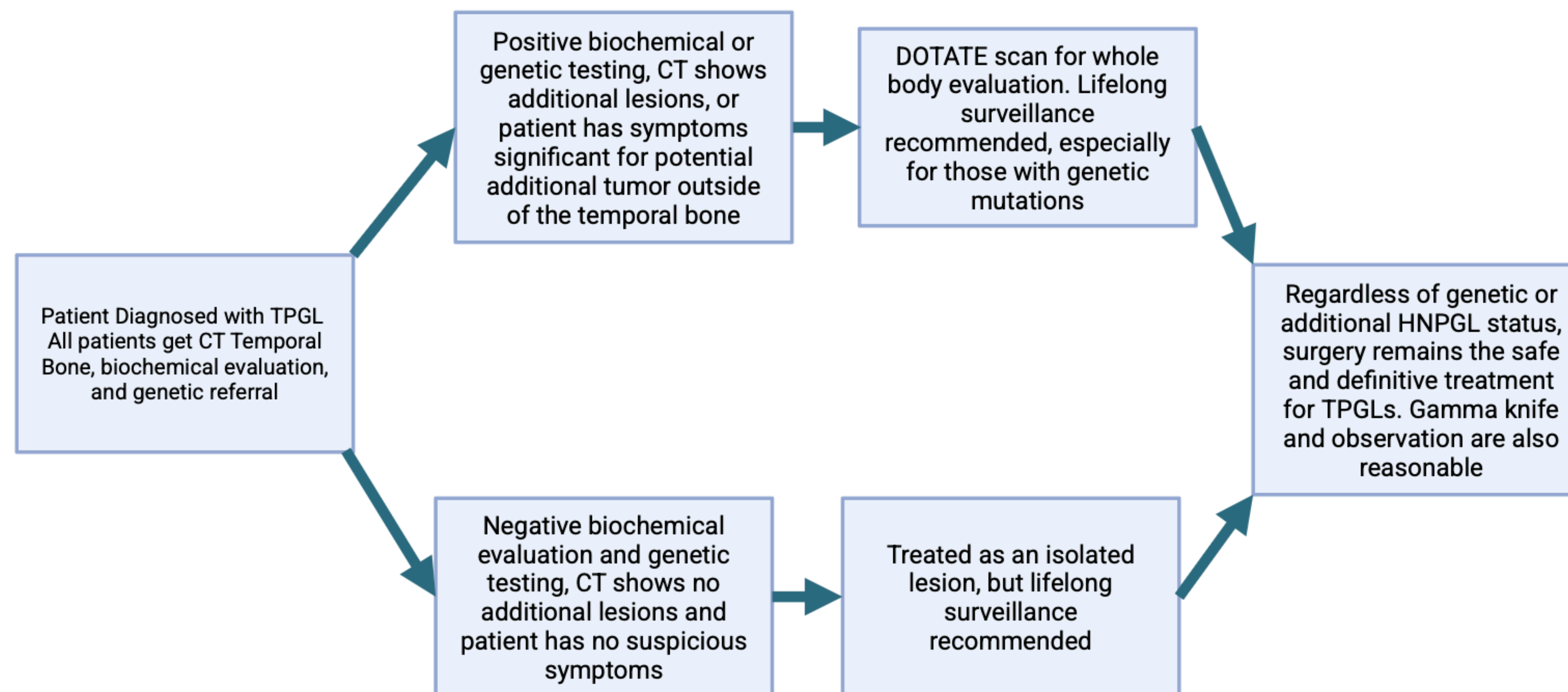
Conclusion

1. For primary and recurrent tympanic PGLs, surgery remains the definitive treatment.
2. The current practice at our institution has evolved to have all patients with TPGLs go for genetic and biochemical evaluation.
3. Given the rate of recurrence in this cohort (18%) and average interval of recurrence (11 years), long-term follow up for tympanic PGLs should be considered.

Acknowledgements

Thank you to Dr. Hwa and Dr. Huan for their input and expertise in the creation of this poster.

Figure 2 – Treatment Algorithm for TPGLs at Authors' Institution



8 out of 8 Female



Avg Age: 63 yrs

Mean Interval: 11 yrs

Recurrence Cohort

