

PURPOSE

Primary cardiac neoplasms are rare entities which often necessitate operative intervention. We present the case of a 47-year-old lady with a large 5.5 x 3.5cm right atrial mass with extension into the IVC that underwent successful robotic assisted excision. Her past medical history was notable for hypertension, hyperlipidemia, and diabetes mellitus. She had no prior history of chest surgery or radiation.

METHODS

A robotic assisted laparoscopic approach utilizing the Intuitive da Vinci Xi robotic platform via four 8mm trocars and a 4cm port access incision in the right chest was used. Femoral cannulation for cardiopulmonary bypass was employed. Bicaval umbilical tapes were used for snaring. Right atriotomy allowed for exposure of the mass and mobilization. A beating heart right atrial tumor excision was undertaken with mobilization and transection along the inferior vena cava.

RESULTS

A minimally invasive beating heart approach for right atrial tumor excision is a viable alternative to traditional open surgical technique. The patient had an uneventful post-operative recovery and was discharged home on post-operative day 6. She returned to her normal daily activities at two weeks post-operatively. Final pathology revealed a benign metastasizing leiomyoma.

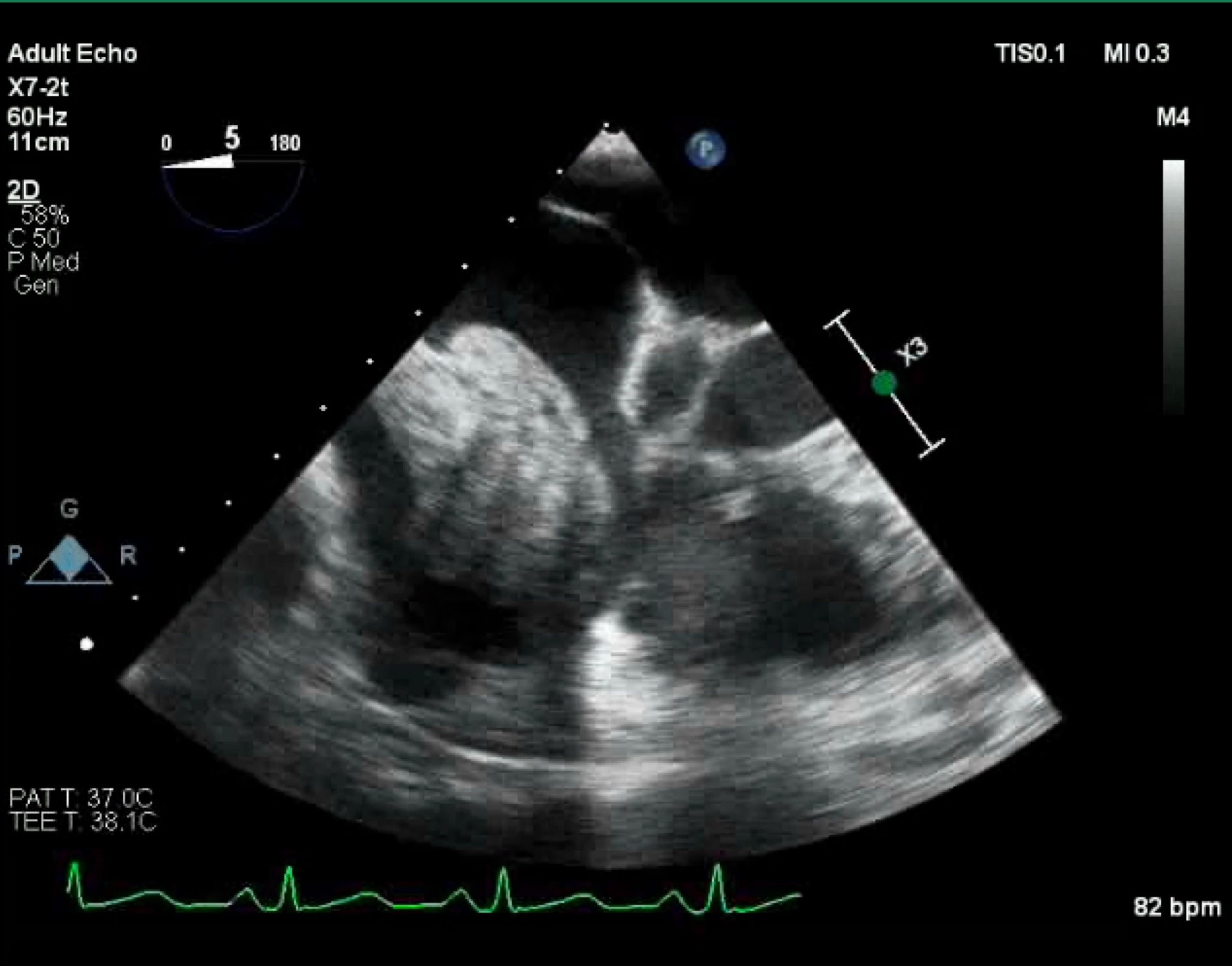


Figure 1: Pre-operative transesophageal echocardiography demonstrating a large right atrial mass with beat-to-beat protrusion through the tricuspid valve

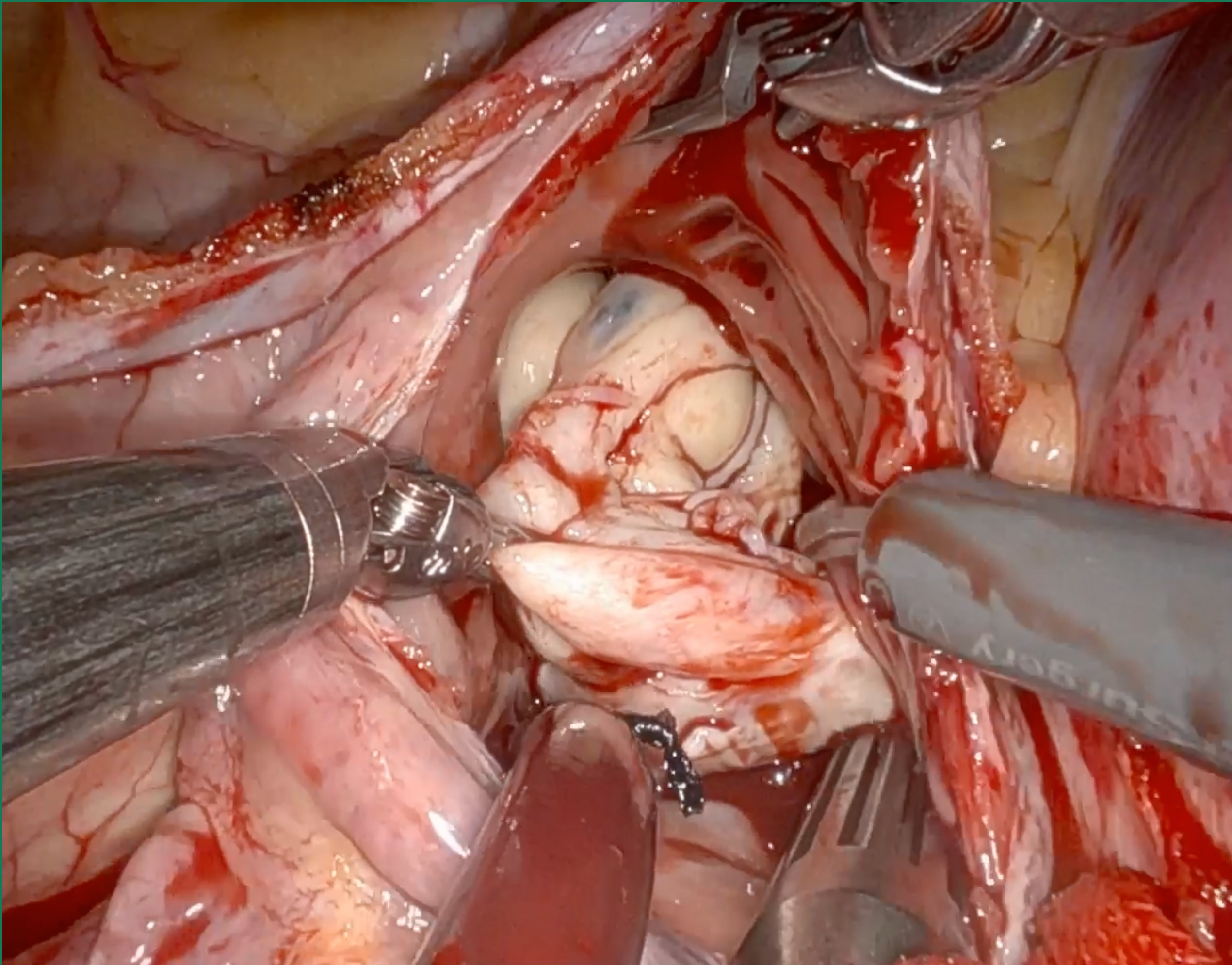


Figure 2: Right atrial tumor in situ with extension to the inferior vena cava



Figure 3: Post-operative minimally invasive incisions

CONCLUSIONS

- Beating heart robotic-assisted approaches to right atrial tumor excision are feasible with excellent results.
- Lower post-operative pain, earlier return to normal activities, and shorter length of hospital stay may be advantages of a minimally invasive approach
- As minimally invasive techniques continue to evolve, further work to elucidate the optimal approach is warranted.

REFERENCES

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