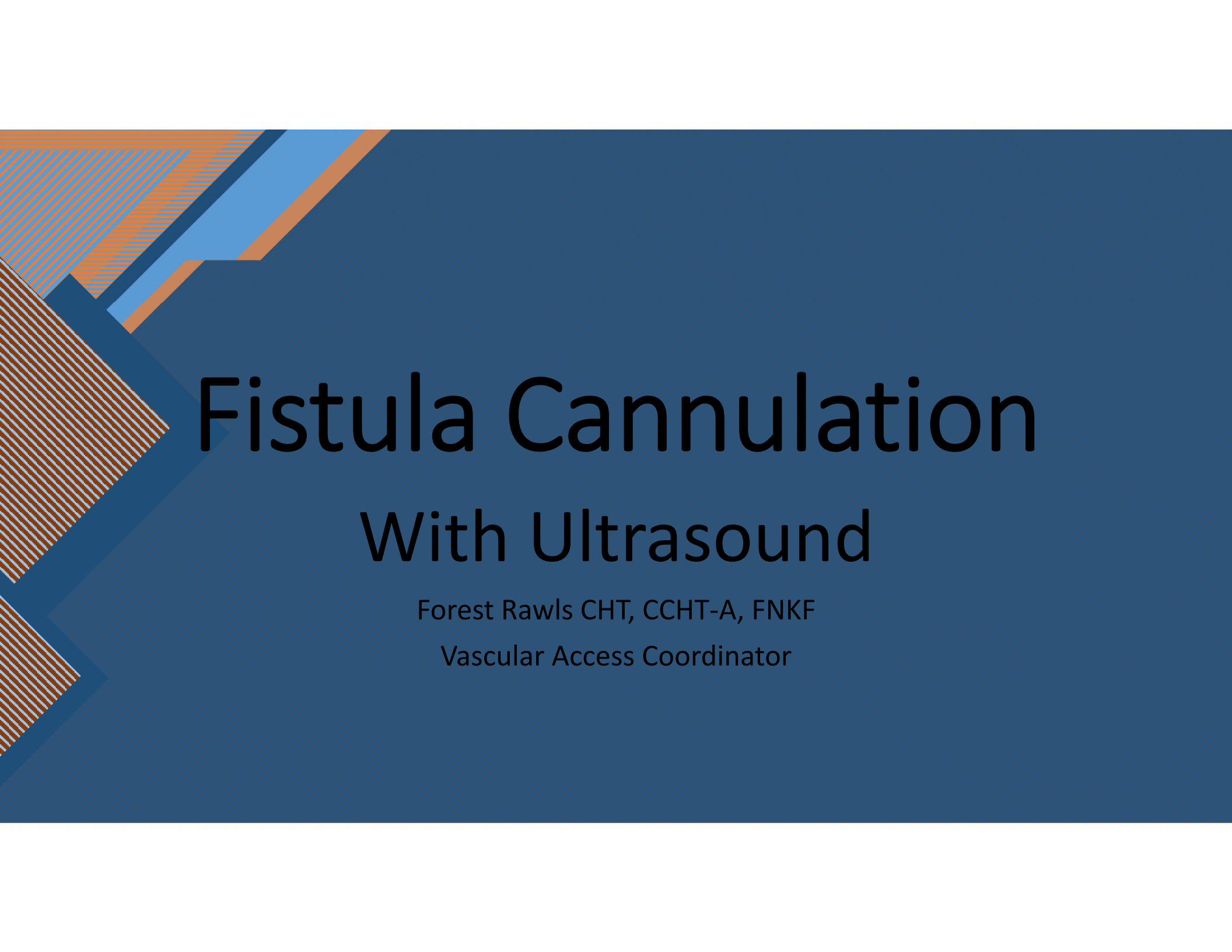




Fistula Cannulation With Ultrasound

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Disclosures

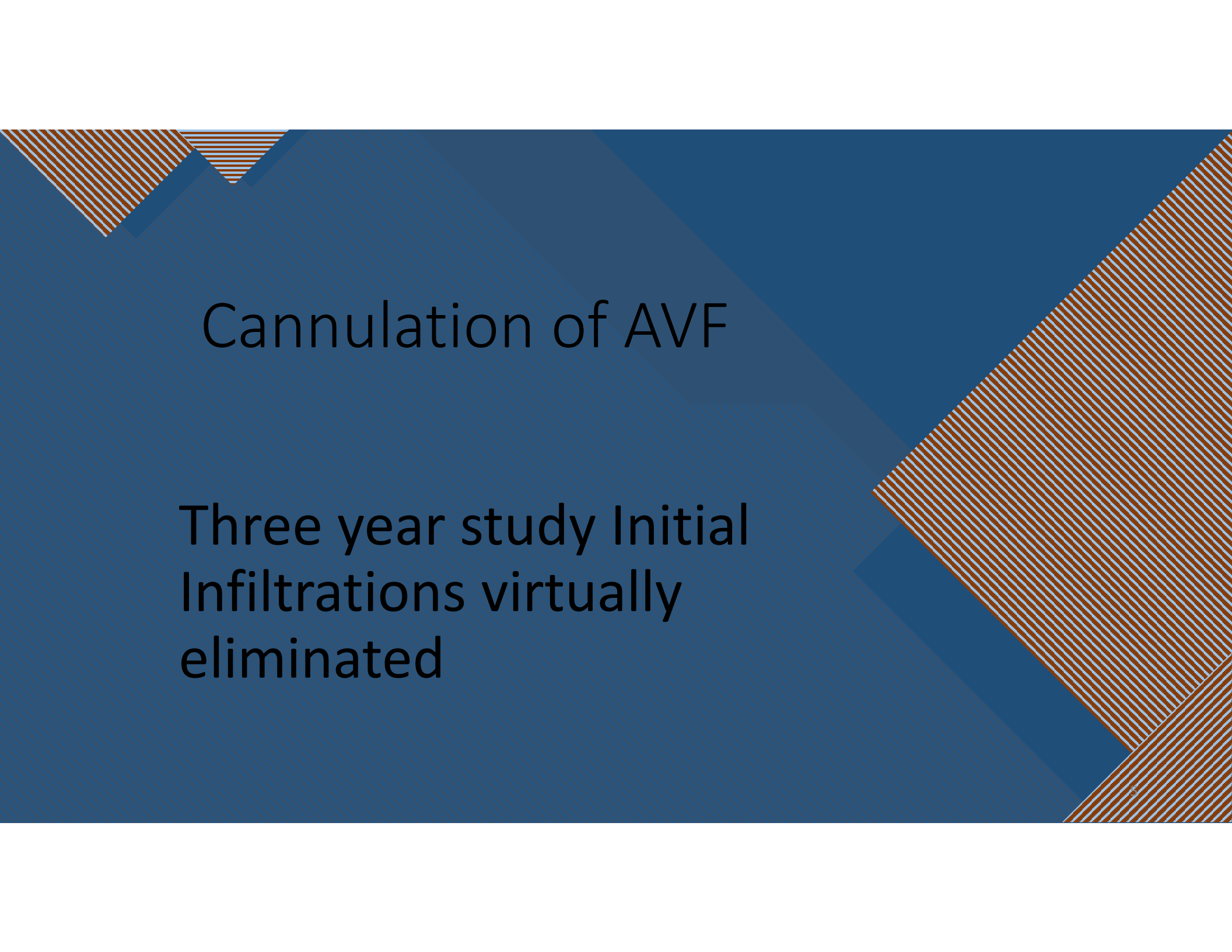
- None

Ultrasound

- More clinics are using Ultrasound to cannulate AVF
- Knowledge of AVF, and practical instruction by an experienced operator is all that is required
- Mapping the area to be cannulated has shown to decrease infiltrations in my facilities

Ultrasound

- Any ultrasound machine can be used. I currently use a ultrasound machine circa 2005
- New portable hand held models are becoming popular easier to use.



Cannulation of AVF

Three year study Initial
Infiltrations virtually
eliminated

AVF infiltration during cannulation of new fistulas increases morbidity, prolongs catheter dependence, and may lead to access failure. In order to mitigate these complications, protocols using US guided cannulation have been developed in some centers. However, though US guided cannulation is minimally invasive, readily available and relatively inexpensive compared to the costs of managing the AVF infiltration and consequences thereafter, its benefits have not been adequately studied so far. This single-center retrospective quality improvement study evaluated the impact of US guided cannulations of AVF on infiltration rate.

Methods

We instituted a protocol mandating US guidance for cannulation of all new AVF in an Emory outpatient HD unit. We also included tortuous or difficult to cannulate AVF based on the discretion of the cannulator. Every patient with a new or difficult to access fistula was evaluated by a trained member of the vascular access team who used US guidance to mark the entire course of each new fistula for cannulation, which served as a visual trap during cannulation. Incidence of AVF infiltrations during the 6 months of the study period was compared to the incidence in the 6 months prior to the institution of the protocol.

Results

A total of 30 patients were cannulated using ultrasound guidance over the study period. There was only 1 cannulation related infiltration in the study period, as compared to 3 instances in the 6 months prior to the use of US guidance. There were 4 instances of mid session infiltrations due to patient movement in the pre-study period, and 2 cases during the study period.

Using US guidance for AVF marking



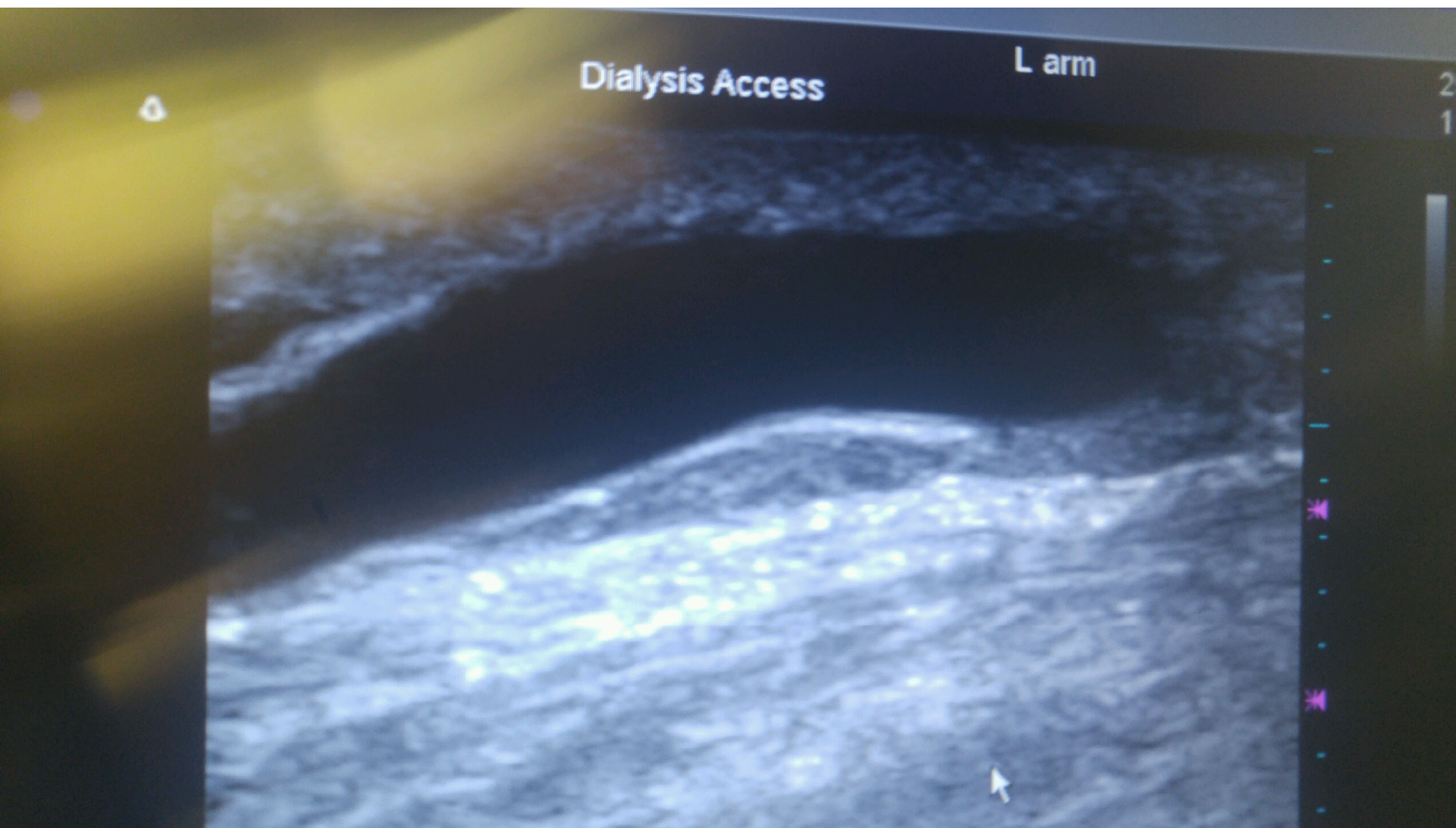
Conclusion

It is imperative to have protocols in place to minimize complications related to cannulation of AVF, particularly in new or difficult palpable AVF. In our center, US guided cannulation of new fistulae in conjunction with a multidisciplinary approach including a dedicated vascular access team, decreased the infiltration rate and help minimize this complication.

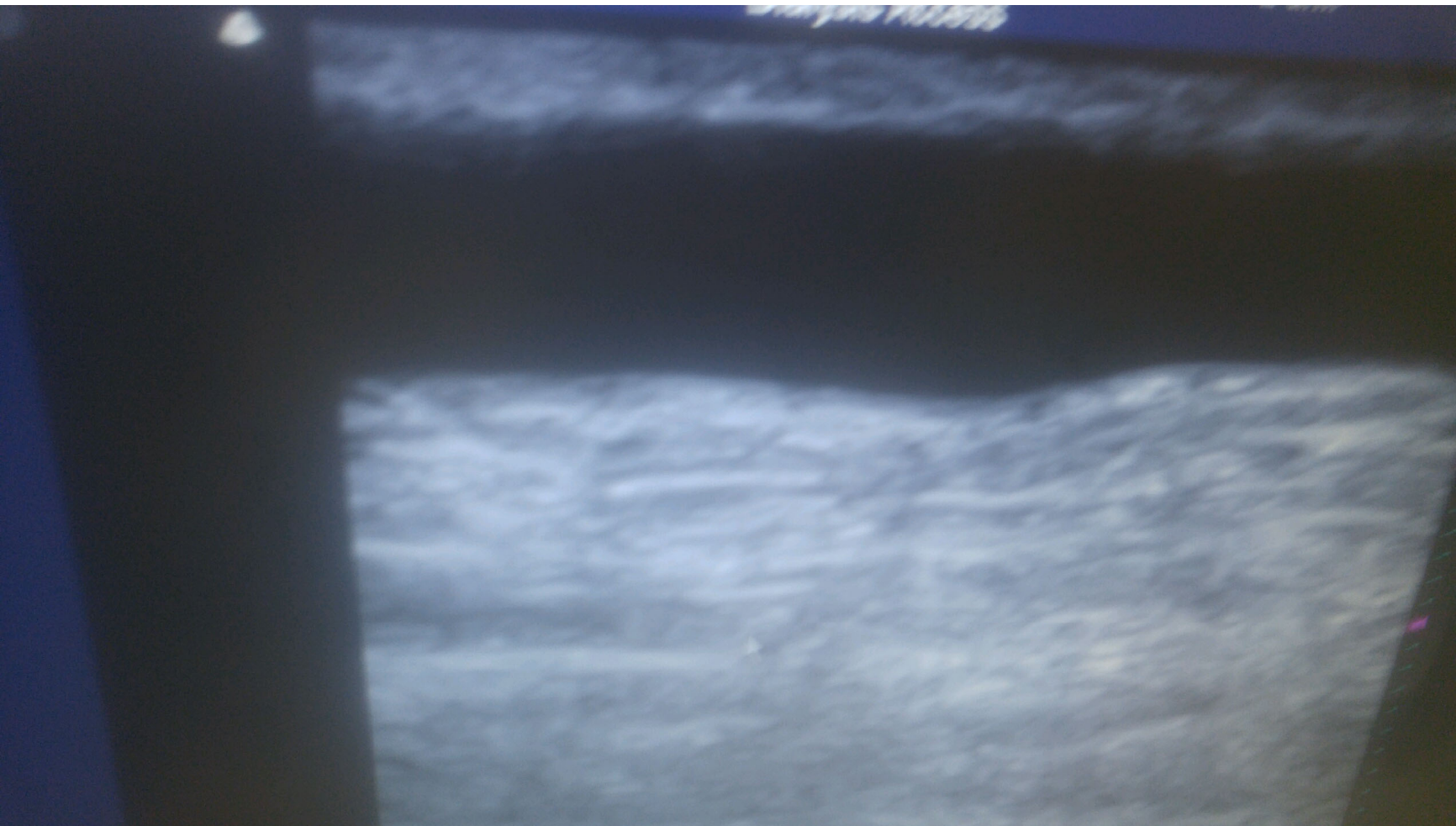
Limitations

This is a retrospective analysis of one outpatient HD center and technique and results may not be generalizable to other centers. Numbers are too low for a statistical analysis.

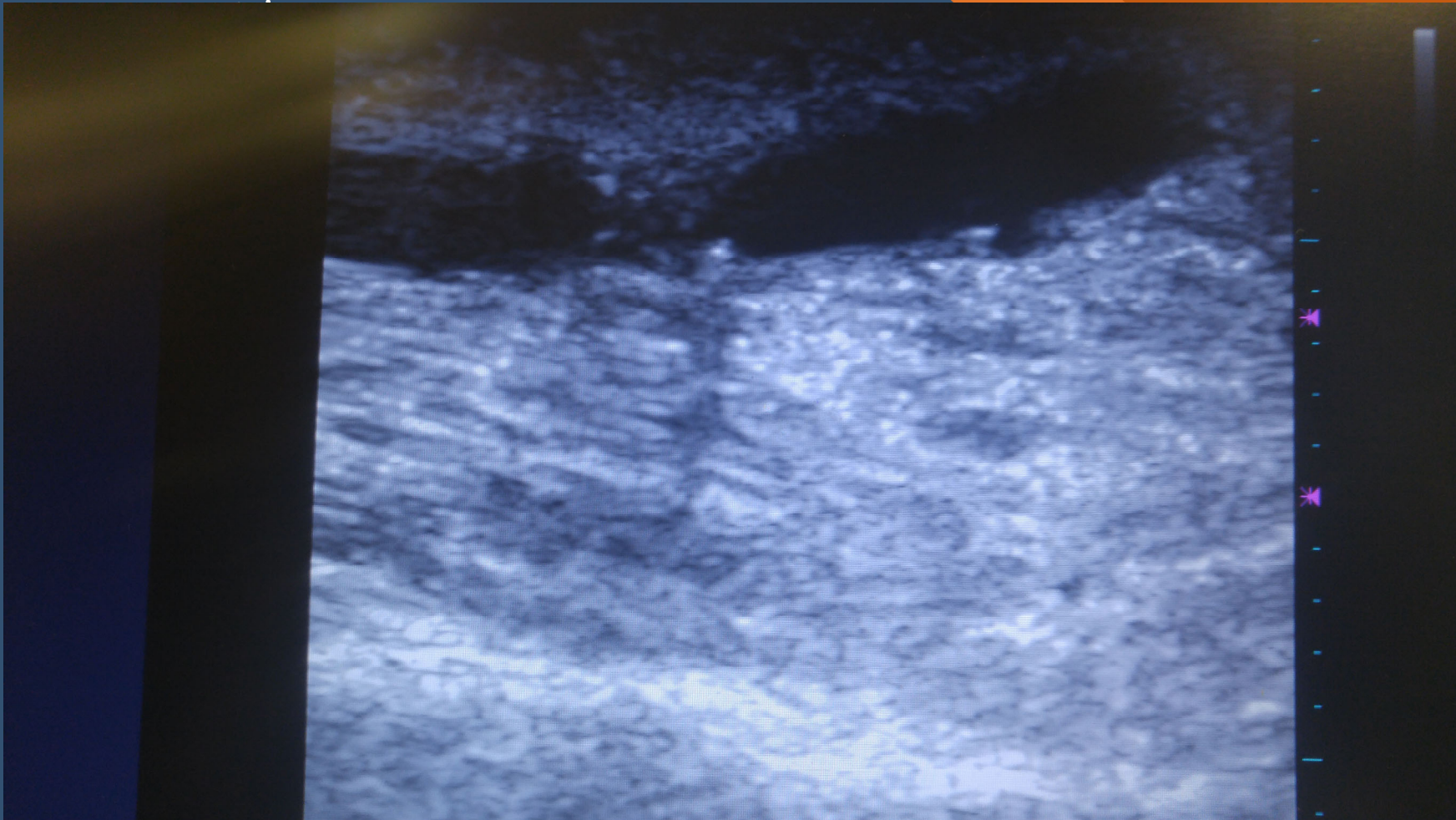














Dialysis Access

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CANNULATION

- Using a core group of SEASONED STAFF, along with ultrasound technology has proven to be a tremendous asset

The background features a solid dark blue field. A large orange triangle is positioned on the left side, with its hypotenuse running diagonally from the bottom-left towards the top-right. A thin, light blue diagonal line runs parallel to the orange triangle's hypotenuse, separating it from the rest of the blue background.

Thank You