





Fig 2



Fig 3



Fig 4

### 3. Discussion

Criteria used to diagnose a pseudo-aneurysm include: swirling color flow seen in a mass separate from the affected artery, color flow within a tract leading from the artery to the mass consistent with pseudo-aneurysm neck, and a typical “to and fro” Doppler waveform in the pseudo-aneurysm neck [3]. Several therapeutic strategies have been developed to treat pseudo-aneurysm. They include ultrasound-guided compression repair (UGCR), surgical repair, and minimally invasive percutaneous treatments (thrombin injection, coil embolization and insertion of covered stents) [1]. Compared with surgical repair, treatment of pseudo-aneurysms with ultrasound-guided compression repair and thrombin injection offers many advantages. The success rate of thrombin injection and ultrasound-guided compression repair reported in the literature has been consistently high, even with patients treated with therapeutic levels of anticoagulants. Treatment can usually be completed within several minutes. Other non-operative methods of treating pseudo-aneurysms include placement of covered stents/endo luminal prostheses. Majority of the prostheses reported in the literature have been used for the exclusion of atherosclerotic aneurysms. A few reports have focused on the use of percutaneous coil placement (stents) to occlude the FAP. In some cases the coil was placed in the neck, while in other patients the coil was placed inside the pseudo-aneurysm in order to achieve closure and local thrombosis [10, 11]. Due to the procedural simplicity, ultrasound-guided compression repair and injection of

thrombin remains a very appealing treatment to most physicians. Currently, research efforts are directed at developing a sponge-like application form of collagen. Then small quantities of sponge-like collagen would suffice to obliterate the FAP cavity, which could be monitored by ultrasound.

### 4. Conclusion

It is unfortunate that most pseudo-aneurysms occur in patients least tolerant to general anesthesia, vascular reconstruction and associated blood loss. Treatment by UGCR or percutaneous embolization is an attractive option and probably the first choice at many institutions for these reasons and cost-effective also. However, there are situations when surgical treatment may be necessary. Surgery is usually effective and definitive. Nevertheless, it is also a relatively expensive means of IPA repair. Although costs of the various procedures utilized for closure of FAP will vary between institutions depends on facility, logistics and expertise of the particular institutions.

### 5. References

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