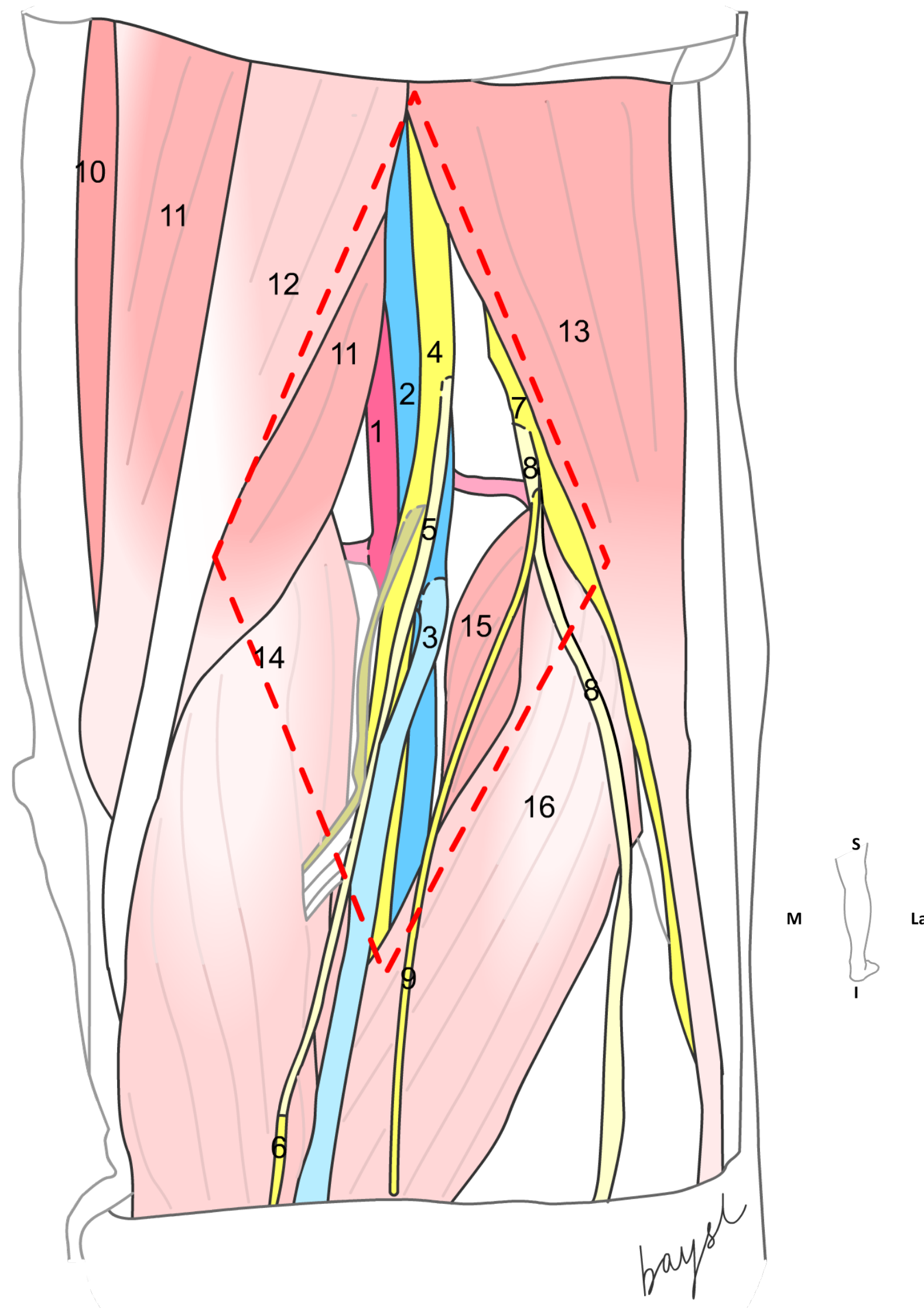


POPLITEAL FOSSA



Posterior view of the popliteal fossa, a diamond shaped area (red dotted lines) located at the back of the knee joint

- | | | |
|---------|-----|--|
| | 1. | Popliteal artery |
| | 2. | Popliteal vein |
| | 3. | Short saphenous vein |
| Nerves | 4. | Tibial nerve |
| | 5. | Medial sural cutaneous nerve |
| | 6. | Sural nerve |
| | 7. | Common fibular nerve |
| | 8. | Lateral cutaneous nerve |
| | 9. | Sural communicating nerve |
| Muscles | 10. | Gracilis muscle |
| | 11. | Semimembranosus muscle |
| | 12. | Semitendinosus muscle |
| | 13. | Biceps femoris muscle |
| | 14. | Gastrocnemius muscle (medial head) |
| | 15. | 15 Plantaris muscle |
| | 16. | 16 Gastrocnemius muscle (lateral head) |

The four borders are formed by the muscles in the posterior compartment of the leg and thigh:

- | | |
|--------------------------|---|
| Superomedial border | – semimembranosus. |
| Superolateral border | – biceps femoris. |
| Inferomedial border | – medial head of the gastrocnemius. |
| Inferolateral border | – lateral head of the gastrocnemius and plantaris. |
| Roof of popliteal fossa | – popliteal fascia and skin. |
| Floor of popliteal fossa | – posterior surface of knee joint capsule, popliteus muscle |

The contents of the popliteal fossa as described from most medial to lateral are:

1. Popliteal artery
2. Popliteal vein
3. Tibial artery
4. Common fibular nerve

CLINICAL CORRELATION

The appearance of a mass in the region of the popliteal fossa may have a number of differential diagnoses, including popliteal cysts or an aneurysm of the popliteal artery. Popliteal (Baker's) cyst – this refers to a fluid-filled cyst that may lead to the feeling of tightness behind the knee joint. Popliteal cysts may occur together with osteoarthritis of the knee. Popliteal cysts may resolve on their own, however if the cyst is large and causes pain, it will have to be removed.

Popliteal aneurysm – an aneurysm is otherwise known as a bulge or dilation of a blood vessel, in this instance – the popliteal artery. Due to the restricted space of the popliteal fossa, dilation of any of its contents may impinge on other structures. A popliteal artery aneurysm tends to impinge on the tibial nerve, resulting in weakened movements and paraesthesia of the region innervated by the tibial nerve. The management of a popliteal artery aneurysm depends on each individual patient and is related to the size of the aneurysm and the existence of other comorbidities.

Question(s)

- One of the contents of the popliteal fossa is the popliteal artery.
 - a. State the path of the popliteal artery (taking note to mention its origin and subsequent branches)
 - b. Discuss where and how you would palpate for popliteal pulse and what the loss of or a weakened popliteal pulse may indicate?
- Discuss the possible clinical correlations of posterior dislocations of the knee joint.