UNIVERSITY OF UTAH SURGICAL SKILLS LAB

Clamp and Tie Module-How To Build

Goal: Residents should be able to pass a silk tie a-traumatically around a clamped structure and tie into a hole.

Model: Skills bucket with Clamp and Tie Module

Materials:
1-Skills lab bucket with towels (see Surgical Bucket Ingredient List)
1-¼ inch Penrose (or catheter of any size)
2-Rubber bands

Instruments and suture:
Debakey forceps x 1
Right angle clamp x1
Mosquito x 2
Suture scissor or Metzenbaum scissor
3-0 silk free tie

Clamp and Tie Module Construction:
1. Cut ¼ inch Penrose in half
2. Cut four small nicks in the Penrose in a straight line
3. Cut Rubber bands into four equal lengths
4. Place a single knot in the end of each length of band
5. Pull bands through holes in Penrose with the knot as an anchor inside the Penrose (note: The Stylet from Rummell tourniquet may help this). If this is not possible, another option is to simply tie rubber bands around a catheter
6. Trim rubber bands to 1 cm
7. Thread Penrose through opposite sides of skills bucket, with bands pointing up

If Penrose is NOT AVAILABLE:
1. Cut catheter the length of the bucket, plus a few inches on each side (long enough to thread the catheter through the bucket)
2. Follow directions above

Clamp and Tie Module Instructions:

Can be completed solo or with partner.
1. Place right angle clamp on vessel (rubber band stump) to obtain hemostasis
2. Place silk tie on the end of mosquito
3. Pass tie around the back of the right angle (mosquito SHOULD NOT pass behind right angle)
4. Guide the suture around the toe of the right angle using the tip of the mosquito (“tip to tip”)
5. Tie a square throw towards the toe of the right angle

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6. When snug, say “off” to your partner (imaginary or real) and they will remove the right angle
7. Throw two more square throws in opposite directions (remember, three total throws for silk suture). Then move on down the row until all the vessels are tied.