Heart Details, Reflect Skin of Anterior Abdominal Wall

W02A - Detailed Dissecting Instructions (GD):
Heart Details; pp. 78-82  
Anterior Abdominal Wall; 89-93

Abbreviated Dissection Instructions
Heart Detail: (1-2 team members)
1. Identify the chambers/areas of the heart
2. Open R. atrium, clean out clotted blood, identify structures
3. Open R. ventricle, clean out clotted blood, identify structures
4. Open L. atrium, clean out blood, identify structures
5. Open L. ventricle (preserve coronary vessels), clean out blood, identify structures

Anterior Abdominal wall (2 team members)
1. Complete height, waist, and hip measurements of donor.
2. Identify the 4 quadrants of the anterior abdominal wall.
3. Complete required measurements.
4. Reflect skin from anterior abdominal wall, identify structures.

Learning issues for presentations. At the end of the dissection you should be prepared to describe, demonstrate, or convey the following concepts using your donor and/or materials in the laboratory:
1. Outline the septal and valve organization of the heart. Explain the basic mechanism of valve function.
2. Trace blood from the right atrium to the pectoralis major m. and return to the Superior vena cava.
3. Outline the anatomic borders and chambers of the heart and how these project to the surface of the anterior thoracic wall.
4. Compare and contrast the muscular wall thickness of the R/L ventricles. How does this observation inform us about pressures developed in the chambers?
5. Outline the structures found in each chamber of the heart. Comment on any similarities/differences.
6. Divide the anterior abdominal wall into quadrants/regions
   a. Indicate the location of major underlying organs and bony landmarks
7. Calculate the Waist-to-Hip ratio (WHR) for your donor. What is the significance of this measure?

Structures to be demonstrated (may be an item on laboratory quiz and on a practical exam)

Heart Chambers/areas
- Right atrium
- Right ventricle
- Left ventricle
- Left atrium
- Apex

R. Atrium
- Auricle
- Pectinate mm.
- Crista terminalis
- Superior vena cava (opening)
- Inferior vena cava (opening)
- Coronary sinus (opening)
- Fossa ovalis
- Tricuspid (R AV) valve

R. Ventricle
- Tricuspid (R AV) valve
- Interventricular septum (muscular and membranous parts)
- Chordae tendineae
- Papillary mm.
- Trabeculae carneaee
- Septomarginal trabecula (moderator band)
- Pulmonary valve
- Pulmonary trunk

**L. Atrium**
- Auricle
- Pulmonary vv. (right and left, superior and inferior)
- Bicuspid (mitral, LAV) valve

**L. Ventricle**
- Bicuspid (mitral, LAV) valve
- Interventricular septum
- Chordae tendineae
- Papillary mm.
- Trabeculae carneaee
- Aortic valve
- Coronary a. ostia (in aorta)

**Bones and Landmarks**
- Xiphoid process
- Pubic bone: tubercle, symphysis
- Anterior superior iliac spine
- Greater trochanter (of femur)

**Anterior Abdominal Wall (Reflect skin and demonstrate the following)**

Using a string and measuring tape provided, complete the following measures of your donor prior to starting your dissection:
- Height
- Waist (Abdominal) circumference (just superior to umbilicus)
- Hip circumference (level of greater trochanters)

Once the skin incision has been made, measure:
- Thickness of the subcutaneous fat of the anterior abdominal wall just adjacent to the umbilicus.

Record measurements on the information sheet.

- External oblique m.
- Inguinal ligament
- Superficial inguinal ring
- Spermatic cord (in males)
- Ilioinguinal n.