The grooves for the vertebral arteries and suboccipital nerves are situated on the superior surface of the posterior arch and run from the foramen transversarium immediately behind the lateral mass (where the groove may be converted into a foramen by cartilaginous or bony tissue, known as a posterior ponticle), to the postero-medial margin of the foramen magnum. In the grooves run the vertebral arteries with the ventral rami of the first cervical nerve.