

The pattern of formation of the rectus sheath from the aponeuroses of external oblique, internal oblique, and transversus abdominis muscles shows regional variations. These variations may influence the microscopic organisation of the rectus sheath. Specimens were collected during autopsies from thirty one subjects (16 male, 15 female) aged 18-70 years old. The rectus sheath was exposed through gentle dissection of the superficial fascia of the anterior abdominal wall. Five millimeter thick sections were harvested and processed for light microscopy. Both walls of the rectus sheath were made up of three distinct zones: superficial, intermediate, and deep. The superficial and deep zones were fibroelastic while the intermediate zones comprised compact bundles of collagen fibres. In the anterior wall of the rectus sheath, these bundles above and below the arcuate line, respectively, were obliquely and transversely disposed. The bundles of the posterior wall of the rectus sheath were, however, transversely aligned. In conclusion, the microscopic organisation of the rectus sheath is determined by its pattern of formation. This sheath is mainly formed by the aponeuroses of the internal oblique and transversus abdominis.