

Types of carcinoma spread

Types of carcinoma spread

Local spread Local spread occurs circumferentially rather than in a longitudinal direction. After the muscular coat has been penetrated, the growth spreads into the surrounding mesorectum, but is initially limited by the mesorectal fascia. If penetration occurs anteriorly, the prostate, seminal vesicles or bladder become involved in the male; in the female, the vagina or the uterus is invaded. In either sex, if the penetration is lateral, a ureter may become involved, while posterior penetration may reach the sacrum and the sacral plexus. Downward spread for more than a few centimetres is rare.

Lymphatic spread Lymphatic spread from a carcinoma of the rectum above the peritoneal reflection occurs almost exclusively in an upward direction. Below that level, the lymphatic spread is still upwards, but when the neoplasm lies within the field of the middle rectal artery, primary lateral spread to the pelvic wall lymphatics occurs in around 20% of cases. Downward spread is exceptional, with drainage along the subcutaneous lymphatics to the groins being confined, for practical purposes, to the lymph nodes draining the perianal rosette and the epithelial lining of the distal 1–2 cm of the anal canal. Metastasis at a higher level than the main trunk of the superior rectal artery occurs late in the disease. A radical operation should ensure that the high-lying lymph nodes are removed by ligating the inferior mesenteric artery at its origin from the aorta. Atypical and widespread lymphatic permeation can occur with highly undifferentiated neoplasms.

Venous spread The principal sites for blood-borne metastases are liver (34%), lungs (22%) and adrenals (11%). The remaining 33% are divided among the many other locations where secondary carcinomatous deposits tend to lodge, including the brain.

Peritoneal dissemination This may follow penetration of the peritoneal coat by a high-lying rectal carcinoma.

Mucosa Submucosa Muscularis propria Mesentery

Revision #1

Created 2025-12-31 15:28:37 UTC by Omar Ayman

Updated 2025-12-31 15:28:37 UTC by Omar Ayman