Case 395

3. Extraperitoneal abscess

【Progress】

She received arterial anus formation using transverse colon because of suspicious extraperitoneal abscess arisen from descending colon.

【Discussion】

In the upper abdomen at renal level, retroperitoneal space is divided into three spaces: anterior pararenal space, perirenal space and posterior para renal spaces. Perirenal spaces contain kidneys and adrenals, anterior pararenal spaces include pancreas and duodenum, and posterior pararenal spaces do not include any organ but fat tissues alone (1). The boundaries among spaces are separated by renal fascia probably to protect kidneys.

In the lower abdomen at below kidneys and pelvis, these spaces are documented to be unified and to extend downward (2). However, no clear description about the exact presence of retroperitoneal spaces or extraperitoneal spaces are present. Peri spaces surrounding ureter, great vessels of aorta, inferior vena, iliac vessels and psoas muscles, exist in extra-peritoneal spaces (3). Further, it is known for urologists, gynecologists and surgeons that para vesical space, para rectal space, anterior vesical space, rectovaginal space, retro rectal space (presacral space), belong to extraperitoneal spaces (4-6). These spaces are independently present but the communications among these spaces are not clarified. Pre vesical space is also termed as space of Retzius (7).

In our case with inflammation fluids forming abscess, inflammation fluids communicate or connect from pleural spaces to posterior pararenal space in upper abdomen. In lower abdomen, inflammatory fluids in posterior pararenal space communicated with anterior pararenal space but not with perirenal space, closure of perirenal space covered with dens fascia, Further, inflammatory fluids flew downward in lower abdomen along with fascia between fat tissues, creating abscess with gas production. Furthermore, inflammatory fluids with gas production flew downward to the left-sided para vesical space and pre vesical space. On the way to para vesical space inflammatory fluids flew via fascia between fat tissues. It means that fascia between fat tissues can be more sparce than renal fascia.

Based on the development of endoscopic surgery and orthopedic pain clinic, the presence of fascia is recognized for peeling and xylocaine injections for relieving pain. Fascia embraces nerves, fat tissue, muscle, ligament and articular capsule. Fascia connecting with muscle is termed as myofascial. Fasica varies dens to sparce. Dens fascia is present as myofascial and sparse fascia is present as embracing fat tissue. There is fascia theory that retroperitoneal space is present along with fascia (2-4). Based on the CT findings of inflammatory fluids flow, it is considered that retroperitoneal space or extraperitoneal space is not present as the specific space, but inside the sparce fascia itself. Namely, inflammatory fluids are considered to inflow to sparce fascia itself, and when dens fascia is present, inflammatory fluids are blocked. Extraperitoneal space is inside the sparce fascia itself.

【Summary】

We presented an eighty-eight-year-old female transported by an ambulance car for labored breathing and urinary infection. Abdomen CT depicted that inflammatory fluids move from pleural space to posterior pararenal space in the upper abdomen. Inflammatory fluids connect pararenal spaces between anterior and posterior. Further, inflammatory fluids flow from para renal spaces to pre and para vesical spaces via sparce fascia present in the pelvis. It is borne in mind that retroperitoneal space or extraperitoneal space is not the specific spaces such as perirenal spaces but mere the sparce fascia itself.

【References】

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