|  |  |  |
| --- | --- | --- |
| **Catheter type** | **Features** | **Advantages** |
| Water-perfused | Catheters are silicone or PVC made and contain a variable number of channels opening to the lumen at different points.  Distilled water is perfused by a low-compliance pneumatic perfusion pump (0.1 ml to 0.5 ml/min/channel).  Pressures are transmitted back along the column of water to an external transducer in the perfusion pump. Number of recording side holes varies from 8 to 36 and the distance between recording sites ranges from 1.5 to 15 cm. | - Lower cost  - More flexible and thinner  - Less vulnerable to damage  - Possibility of autoclaving sterilization |
| Solid-state | Strain-gauge pressure transducers are embedded within the catheter and are therefore at the point of measurement.  Commonly it consists of 36 pressure sensors with 2 possible configurations:   1. Proximal 20 sensors spaced at 4 cm intervals and distal 16 sensors spaced at 2 cm; 2. All sensors spaced 3 cm. | - Simplicity to set up and use  - Increased amount of sensors  - More sensitive in detecting contractile activity  - Allow prolonged recording since there are no concern for fluid overload |

**TABLE 6 - SUPPLEMENTARY DIGITAL CONTENT 8**

**Characteristic of colonic manometric catheters available in the market**