

Summary: measurement of colonic transit time with Transit-Pelletsmethod™

The measurement is indicated particularly in patients with bothersome constipation that does not respond to conventional treatment. It is a cost effective way to measure rapid, normal and slow colonic transit. Both total transit and segmental transit dysfunction in the colon can be evaluated.

Indications for transit measurement

1. When a patient with constipation does not respond to treatment.
2. Repeated measurement for documentation of effects of treatment.
3. In cases of chronic diarrhoea, when an objective measure of rapid transit is wanted.
4. Suspicion of constipation-induced diarrhoea: the test will show a slow transit despite the patient's report of loose stools.

Instructions for transit measurement

Step 1:

One capsule with 10 markers is swallowed day 1-5. On day 6 one capsule with 5 markers is swallowed in the morning (24 hours prior to x-ray) and another one in the evening (12 hours prior to x-ray).

No laxative and bulking agents shall be ingested.

Step 2:

Abdominal x-ray or fluoroscopy on day 7.

Step 3:

Calculation & interpretation.

Advantages

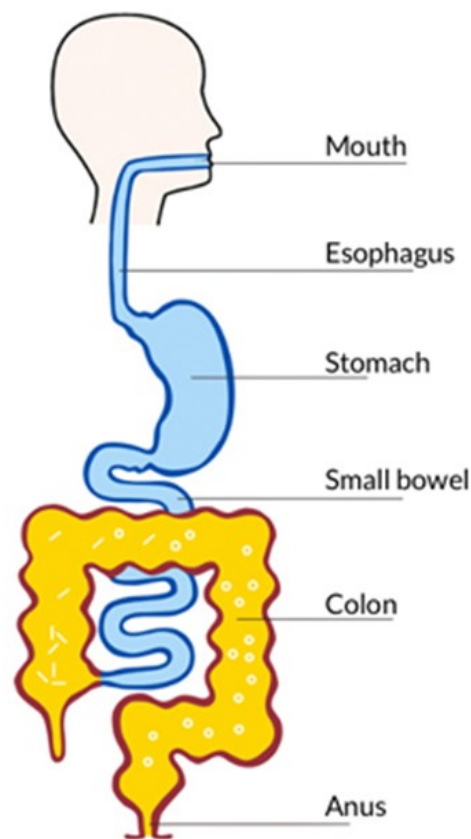
- High availability and affordable
- A cost effective alternative to expensive methods like wireless capsules and scintigraphy
- Takes women's slower digestion into consideration
- Provides information about total and segmental transit time
- Gives a mean value for several days' marker boluses
- Suitable for therapy studies
- Can measure rapid colonic transit
- The method has been validated and has been used in thousands of patients
- Only one X-ray needed
- The capsules with markers are easy to swallow
- Helps the physician to understand the patient's problem and make further decision on treatment
- Requires good patient compliance

Calculation

Colonic transit time is the equivalent of the number of daily marker doses retained. With a daily dose of 10 markers the transit time is $M/10$, i.e., the number of markers on the x-ray film (M) divided by the daily dose. If, for example, 27 markers are retained, the OATT is 2.7 days according to the formula $M/10$. The upper normal value is 4.0 days for women and 2.2 days for men.

Applications

- If the colonic transit is delayed, intensified constipation therapy should be considered with alteration of laxative treatment, motility stimulating drugs etc.
- If the patient has severe complaints of constipation but the transit time is completely normal, there is a high possibility of altered sensitivity like IBS and the therapy should be directed accordingly.
- In a very small number of patients with colonic inertia, surgical therapy may be considered (colectomy with ileorectal anastomosis) but if transit time is normal in the caecum-ascendent segment, this operation is not indicated.
- If transit through rectum and the sigmoid colon is delayed, the possibility of outlet obstruction including pelvic floor dysfunction should be considered.



Schematic figure (above):

Female patient with 27 markers in the colon (10 tube formed, 17 ring formed). The transit time is 2.7 days, i.e. normal.

Ingredients

Capsule:
Hypromellose methylcellulose E464

Markers:
Elastosil® R401 / 60, silicone rubber (88%)
BaSO₄ powder EMPROVE (22%)

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