Summary: measurement of colonic transit time with Transit-Pellets method™

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.
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
• Take’s 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

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**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.

**Ingredients**

Capsule: Hypromellose methylcellulose E464

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

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