



ACTIM[®] FECAL BLOOD COMPARISON WITH HEMOCCULT TEST

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In this study, Actim[®] Fecal Blood test result was compared with Hemocult test result, a guaiac fecal occult blood test. Totally 280 patients were drafted to the study. Colonoscopy was performed with totally 218 patients. Actim Fecal Blood test was not performed with 5 patients. After all, there were 213 completely evaluated patients.

Based on the results, the sensitivity of the Actim Fecal Blood is clearly better than the sensitivity of the Hemocult test. However, the sensitivity of neither of the two tests is very good. There were only a few false positives and therefore the specificity of both tests is good.

Colorectal disease	Actim [®] Fecal Blood		Hemocult	
	+	-	+	-
+	49	40	23	66
-	8	116	5	119

	Actim [®] Fecal Blood	Hemocult
Specificity (%)	93.6	96.0
Sensitivity (%)	55.0	25.8
Precision (%)	77.5	66.7
PPV (%)	86.0	82.1
NPV (%)	74.4	64.3



ACTIM[®] FECAL BLOOD EVALUATION AT TAMPERE UNIVERSITY HOSPITAL

In this study, two consecutive fecal samples were collected from 41 patients. Samples were analyzed by three alternative test methods: Fecatwin, Hemolex, and Actim[®] Fecal Blood. Gastroendoscopy and colonoscopy were then performed. The findings were classified as colorectal disease or disease in the upper part of the gastrointestinal tract or negative. Three patients were simultaneously diagnosed with upper gastrointestinal tract and colorectal disease.

The sensitivity and specificity of each test was calculated for colorectal disease (including the three patients with also a disease of the upper gastrointestinal tract) and for upper bleeding separately.

The Actim Fecal Blood test had the highest sensitivity in both groups. No false positive results were detected for patients without pathological findings in the endoscopies. The specificity of the two immunological tests (Hemolex and Actim Fecal Blood) was 100%, but with the Guaiac test (Fecatwin) it was only 66.7%.

Actim Fecal Blood test had the best combination of sensitivity and specificity for detecting colorectal disease. For bleeding from the upper gastrointestinal tract, the specificity of the immunological tests is good and there were no false positive results. However, there were quite a many false negative results and therefore the sensitivity is low.

Colorectal disease	Actim [®] Fecal Blood		Hemolex		Fecatwin	
	+	-	+	-	+	-
+	8	3	6	5	7	4
-	0	12	0	12	4	8
Upper Bleeding						
+	5	8	3	10	4	9
-	0	12	0	12	4	8

Colorectal disease	Actim [®] Fecal Blood	Hemolex	Fecatwin
Sensitivity (%)	72.7	54.5	63.6
Specificity (%)	100	100	66.7
Upper Bleeding			
Sensitivity (%)	38.5	23.1	30.8
Specificity (%)	100	100	66.7

Note: The Colorectal disease group includes the three cases with simultaneous diagnosis of upper bleeding and colorectal disease.