

Anpac Bio-Medical Science Company Ltd. Abstract:

**Investigations of an Improved Esophageal Cancer
Diagnostics Approach**

Sub-category:

Esophageal or Gastric Cancer

Category:

Gastrointestinal (Noncolorectal) Cancer

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Abstract:

Background: For esophageal cancer, no viable non-invasive detection technologies are available today. In this investigation, a newly developed IVD cancer diagnostic technology named Cancer Differentiation Analysis Technology (CDA) was investigated for esophageal cancer detection. In a CDA technology, multi-level and multi-parameter information is collected using a medical device fabricated by Anpac Bio-Medical Science Co., Ltd. which measures information relating to both protein fragments and cellular signals in blood samples in a single test. **Methods:** Blood samples were collected in EDTA vacutainer tubes, with 49 esophageal cancer patients and 303 healthy individuals (control group). CDA data was then collected, and analysis was carried out. **Results:** The results showed significant statistical difference between esophageal cancer and control groups with P value < 0.05 (Table 1). Also, CDA values at different stages of esophageal cancer samples showed possible effectiveness using CDA technology for early stage esophageal cancer detection (P value < 0.05 between stage I esophageal cancer and control groups). In addition, using a reasonable cut-off value, its sensitivity and specificity are about 70% and 90%, respectively. **Conclusions:** CDA technology is a promising approach for esophageal cancer diagnostics including early stage diagnostics. **Keywords:** Esophageal Cancer; CDA

Table 1 CDA Test Results.

Group	Sample Size	CDA Mean (rel. units)	CDA STDEV (rel. units)
Control Group	303	33.7	9.1
Esophageal Cancer Group	49	52.4	11.0