Adult Pulpal Diagnosis. I. Evaluation of the Positive and Negative Responses to Cold and Electrical Pulp Tests

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**Aim**
- To compare false +Ve & false -Ve responses in both electrical & cold thermal pulp testing
- To determine if a correlation of these responses could further increase the probability of identifying irreversibly involved pulps.

**Materials & Methods**
- 60 patients referred for endodontic evaluation and treatment were included in this study
- Before testing, full-mouth radiographs & complete oral examination was performed.
- 3 subgroups were identified of pulpless or pulpally diseased teeth:
  a- Teeth received RCT (61 teeth)
  b- Teeth received complete or partial pulpectomy (20 teeth)
  c- Teeth with PAR (14 teeth)
- Each tooth was tested using CO2 snow cold and two electrical testers.
- Patients were instructed to raise a hand the moment they experienced a sensation caused by a test.
- Each test was used on all existing teeth in a patient’s dentition on the facio-cervical and facio-occlusal half of each tooth and restorations.
- Time to response was recorded.
- A no response was recorded if:
  a- **Cold testing:** no response by 15 sec.
  b- **Electric pulp testing:** no response when level reached 80.
- Statistical analysis was performed.

**Results & Conclusion**
- The only false +Ve responses to cold testing in the 3 subgroups were in multi-rooted teeth indicating high probability of having viable tissue remaining.
- It is extremely rare to have false –Ve to electrical testing.
- There is a high probability that the pulp is diseased or tooth is pulpless, if:
  a) Teeth do not respond to cold test
  b) Teeth have no response or respond at a high level during electric pulp testing
- No significant difference of false +Ve between electrical & cold testing.

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