

CT Oral Contrast* - Better Taste Gives Better Performance

Introduction

There has been anecdotal discussion for many years concerning the clinical benefit of palatability with CT oral contrast. The proposition is a simple one: in order for an oral contrast to be effective, the patient must drink the entire intended dose. If a comparison is made of two products, it is more likely that compliance with an ingestion protocol will be achieved with the more palatable product, and better compliance will lead to better opacification. While this phenomenon has been mentioned in many clinical trial reports, it has never been proven in a prospective trial.

Clinical Evaluation: Part 1

A recent prospective clinical study conducted at the Leicester Royal Infirmary, Leicester, UK¹ was designed to identify if there was a statistically significant relationship between oral contrast palatability, drinking protocol compliance and quality of small bowel opacification. The first part of the study looked at two iodinated contrast agents, diatrizoate (with an aniseed flavoring) and iopamidol (with no flavoring). 101 patients were randomly given 1 liter of a ~2% solution of diatrizoate (ionic) or iopamidol (non-ionic) prior to a body CT scan. Data was recorded concerning the palatability of the oral contrast, drinking protocol compliance and bowel opacification.

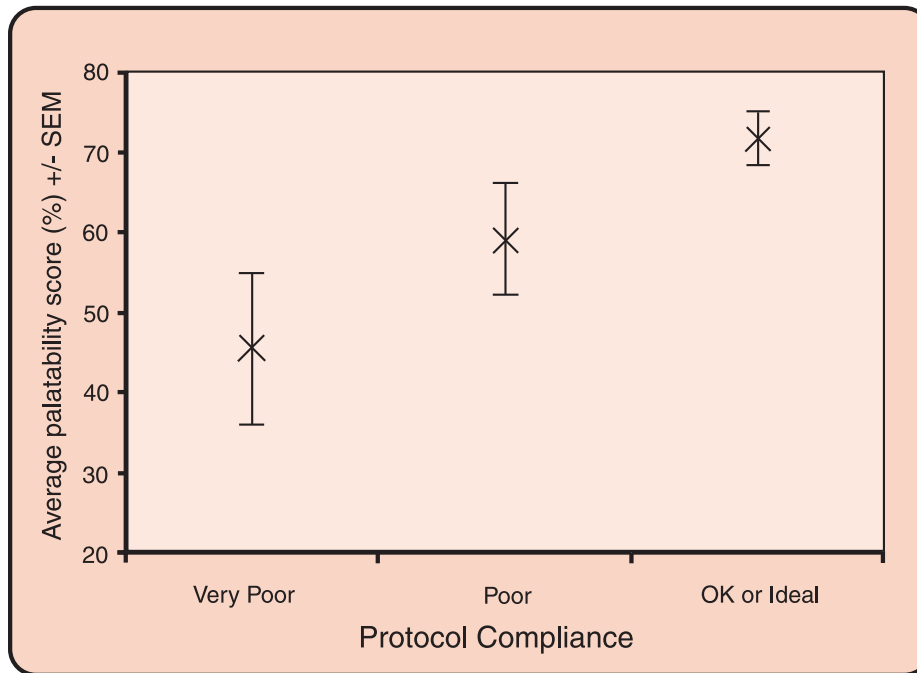
The study demonstrated that iopamidol had better palatability than diatrizoate ($p=0.001$). It was also shown that patients who found the oral contrast more palatable had improved drinking protocol compliance ($p=0.007$) and improved small bowel opacification ($p=0.03$).

Clinical Evaluation: Part 2

The second phase of the study compared E-Z-CAT[®] with iopamidol. E-Z-CAT was chosen because it was the only E-Z-EM barium-based CT oral contrast product cleared for use in the UK. Despite the fact that E-Z-CAT is the oldest product in the E-Z-EM CT oral contrast line, it scored as well as iopamidol for palatability. Interestingly, E-Z-CAT also demonstrated superior performance for quality of opacification of the small bowel ($p=0.001$). The reasons for this superiority are not clear, but one current theory is that it may be due to the relative osmolality of the agents.

As a result of these findings, the hospital decided that it was justified to change its preferred contrast², concluding in its trial report "that the palatability of oral contrast media is not only important to the patients' experience while undergoing body CT, but also to small bowel opacification. This study has resulted in a change in the local use of contrast media to E-Z-CAT."

Correlation of Taste to Compliance in Oral CT Contrast Agents



Average scores represent combined patient compliance for diatrizoate, iopamidol and E-Z-CAT CT barium.

Conclusion

The study highlights the importance of contrast taste. Patients who are accepting of the contrast are more likely to drink it with minimal coaxing and encouragement from the staff. If such full compliance is thus achieved, it may lead one to conclude that a better tasting oral contrast is actually a productivity tool.

E-Z-EM CT Oral Contrast - *Safety Never Tasted So Good*

* E-Z-EM manufactures and markets a wide range of CT oral contrast products. All products in the range have essentially similar clinical properties, and the decision to choose one over another is based on non-medical criteria such as convenience or taste preference. Not all products manufactured by E-Z-EM are available in all global markets. Brand names used for E-Z-EM CT oral contrast products in various global territories include Smoothie, Readi-Cat®, E-Z-Cat®, E-Z-Cat® Dry, and BARICAT®.

Not all flavors are available in different countries - refer to local E-Z-EM distributor/agent.

References:

1. Basu A, MD. The effect of compliance with oral contrast media protocols for abdominal CT on bowel opacification and diagnostic ability. *European Journal of Radiology (in press)*.
2. Basu A, MD, Specialist Registrar; Leicester Royal Infirmary, Leicester, UK: Personal communication.



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