

Kerionrhea (waxy diarrhea), a new sign to bear in mind

Key words: Kerionrhea. Waxy diarrhea. Orange stools.

Dear Editor,

We have recently treated three patients with kerionrhea and would like to make a few comments. The cases were two females and a male aged 44, 28 and 49 years old, respectively. They were concerned due to the presence of one to three orange oily-mucous bowel movements, with or without feces. This only lasted 24-72 hours in all cases until regular bowel movements were recovered. There was no history of abdominal symptoms, rash or fever.

Until recently, this kind of event was very unusual in our country. However, it has become more frequent due to the increased ingestion of poorly cooked or raw food (*sushi*, *sashimi*, *ceviche*, etc.) (1-3) during the last decade. All our patients mentioned a recent intake of raw fish, which also occurred when this phenomenon was first described (4). The ingested fish belonged to the *Gempylidae* family (*Lep-*

idocybium flavobrunneum and *Ruvettus pretiosus*), also known as escolar and incorrectly classified as butterfish. Almost 20% of their weight is made of indigestible and non-absorbable wax esters or gempylotoxins (there is no specific lipase). Once inside the colon, they produce an osmotic laxative action and false diarrhea, with or without incontinence (5) (Table 1). A similar outcome occurs with the drug Orlistat[®], when lipases are inhibited and induce steatorrhea. The histidine originated from an incorrectly preserved fish which is transformed by the intestinal microbiota into histamine (3). Thus, this manifestation is sometimes accompanied by histamine toxicity symptoms, such as a headache, rash, abdominal pain or sweating.

These are non-severe and self-limited symptoms which concern patients. It is important to know and identify this kind of condition in order to avoid inappropriate, expensive and unnecessary diagnostic tests.

Antonio M.^a Caballero-Mateos, Antonio Damián Sánchez-Capilla and Eduardo Redondo-Cerezo
Service of Digestive Diseases. Hospital Virgen de las Nieves. Granada, Spain

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Table 1. Characteristics of kerionrhea, wax esters and escolar fish

Kerionrhea	Wax esters	Escolar fish
<ul style="list-style-type: none"> - Intake of raw or boiled escolar fish (<i>sushi</i>, <i>sashimi</i>, <i>ceviche</i>) - Symptom onset: 20 min - 4 h (average 2 h) - Intensity depends on the amount ingested - Duration of symptoms: 2-48 h - Self-limited and non-severe - No other abdominal symptoms, except when there is histamine toxicity - No further studies needed 	<ul style="list-style-type: none"> - Indigestible, non-absorbable and non-toxic - Non degradable with heat - Liquids at blood temperature (low melting point) - Produce osmotic diarrhea (false diarrhea) - Sometimes incontinence 	<ul style="list-style-type: none"> - Cheap and recently introduced into our internal market (mainly raw) - Subject to quality standards by Aecosan (Spanish Agency of consumption, food safety and nutrition) and the EU: <ul style="list-style-type: none"> • Sale: packing • Labeling: information about preparation, proper cooking and risks • Labeling: with scientific and common names - Forbidden in Japan, South Korea and Italy. Authorized with recommendations in the EU, Australia, Canada and USA - Fraudulently sold as butterfish, grouper, cod, white tuna or pompano

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