

# GIANT GASTRIC BEZOAR: A CASE REPORT

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## ABSTRACT

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**Background:** We report a case of gastric bezoar in a patient with underlying schizophrenia who presented with features mimicking gastric tumour in Federal Medical Centre (FMC), Keffi, Nigeria.

**Methods:** This is a report of gastric bezoar who posed a diagnostic conundrum to the managing clinicians. Radiological investigation gave a lead point to the diagnosis and intra-operative finding eventually confirmed the diagnosis of gastric bezoar.

**Results:** A huge gastric bezoar weighing 2,000g was found. This comprised of different components on non-biodegradable materials.

**Conclusion:** Diagnosis of gastric bezoar requires a high index of suspicion by the managing physicians especially in mentally unstable patients.

**KEYWORDS:** Gastric bezoar, Schizophrenia, Diagnosis

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## INTRODUCTION

Bezoars are retained, indigestible foreign materials or concretions that accumulate along the gastrointestinal tract.<sup>1</sup> This entity is commonly encountered in the stomach but could occur at any location within the gastrointestinal tract (GIT).<sup>2</sup> Bezoars have been found to complicate gastric surgeries, autonomic disorders like diabetes mellitus as well as being predominant in psychotic patients.<sup>3</sup> Bezoars are a significant cause of malnutrition as the patient normally experiences easy satiety and demonstrates apathy to feeding. Bezoars are generally classified according to their composition hence; phytobezoars (plants and vegetable

fibres), trichobezoars (hair), pharmacobezoars (medications), lactobezoars (milk protein especially in infants).<sup>4, 5</sup> Bezoar as an entity may cause untoward complications like gastrointestinal bleeding, gastric outlet obstruction, ileus and even malnutrition.<sup>6</sup> On the extreme, though very rarely, bezoars have been reported to have been present along the entire length of the GIT, a condition referred to as Rapunzel syndrome.<sup>7</sup> The diagnosis of bezoars relies on a high index of suspicion with confirmation using upper GI endoscopy, barium studies or contrast enhanced computerized tomography (CT) scan. Upon diagnosis, bezoar has to be removed either with dissolution therapy, endoscopy or open surgery. In this series, we report a patient with underlying psychotic disorder whose pre-operative and intra-operative findings were in keeping with that of gastric bezoars.

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## Case report

R.I, a 30-year old lady who presented with progressive abdominal distension over a 4 year-duration and recurrent, dull, upper abdominal pain over a 2-year period. There was associated anorexia, early satiety and weight loss. No history of change in bowel habit and no associated history of haematemesis, haematocheizia or jaundice. She has a history of ingestion of inedible particles from the ground and was assessed at a tertiary hospital earlier where a diagnosis of schizophrenia was made. Adherence to antipsychotic treatment as follow-up was inadequate and this necessitated referral to our hospital which is closer to her place of abode.

Clinical examination revealed a patient with stable vital signs and abdominal findings of a distended abdomen; more at the epigastrium measuring 20cm x 22cm with a smooth surface and well circumscribed edge. No demonstrable ascitis, no Sister Mary Joseph's node, no Virchow's node, no blummer's shelf.

Investigations done revealed haemoglobin of 7.3g/dl; serum potassium level of 2.3mMol/l. Abdominal CT scan revealed markedly distended stomach with mottled lucencies seen with displacement of bowel loops inferiorly and laterally and a conclusion of gastric bezoars was made.

She was optimized and had exploratory laparotomy with operative findings of (a) grossly dilated stomach with gritty sensation. Gastric contents include plating thread, drug sachets, milk sachets, empty polythene sachets, human hair strands, small empty black nylon; all weighing 2000gm (b) atretic gall bladder (c) normal spleen and liver. Post-operative, she developed superficial incisional surgical site infection on the 6<sup>th</sup> day and this was managed accordingly. She was co-managed

with the mental health physician and was discharged to the psychiatry and surgical clinics for follow-up. Family members were counseled on keeping free items away from her easy reach in order to prevent recurrence.

## Discussion

Bezoars are a common finding among patients with psychosis. It may also complicate gastric surgeries or found in diabetic mellitus patients with autonomic dysfunction (gastroparesis); elderly patients (due to impaired gastric emptying), patients with neuronal diseases like Gullian - Barre disorder, and hypothyroidism.<sup>3</sup> In South-west Nigeria, there was a report of mechanical small bowel obstruction arising from phytobezoar.<sup>4</sup> Edentulous patients are also not spared of this pathology. Our index patient has been receiving treatment for schizophrenia and it could be seen that some of the contents removed at surgery included some of her medications in sachets. Her poor adherence to antipsychotic medications and the fact that the psychotic symptoms were yet to resolve could be the reason for this bizarre behaviour.

There was associated history of early satiety, weight loss, severe anaemia that warranted blood transfusions and lethargy. These features have been reported in other series and appear to be consistent with the pathology of bezoars presenting with features of bowel obstruction.<sup>8, 9</sup> These features are more in keeping with advanced malignant gastric pathology however, one would have expected the presence of Virchow's node, ascitis, haematemesis and/or mealana but these were conspicuously absent. Symptom evaluation with upper GI endoscopy could not be done as this facility is not available in the hospital hence, an abdominal CT scan that was done

which gave an impression of gastric bezoar.

The intra-operative finding was that of a massive stomach with gritty sensation (feeling like a bag of sand). Gastrotomy revealed the presence on non-biodegradable debris that have been earlier described to be common among patients with bezoars. These non-nutritive substances have accumulated over time and are the causes of early satiety, anorexia, weight loss and abdominal distension that the patient presented with. Also, due to malnutrition, the production of intrinsic factor necessary for Vit B12 absorption would have been impaired and this may account for the anaemia in the patient. The atretic gallbladder maybe also be attributed to the pressure effect of the grossly enlarged stomach over the years.

Different methods have been used for the removal of gastrointestinal bezoars and these depend largely on the composition of such bezoar, available facilities and mode of presentation of such patients. Such options include endoscopic retrieval, use of carbonated solution, dissolution with enzymes/chemicals and open surgery.<sup>10</sup> Careful patient selection must be done in order to be considered for dissolution

method or endoscopic retrieval. For our patient, the option for open surgery was considered because of non-availability of endoscopic services and also, it would have been impossible to retrieve the debris in this patient using endoscopic route.

The post-operative wound infection encountered was not surprising as the surgery done on this patient was a contaminated procedure hence; the attendant infection was not out of place. This was managed with regular change of wound dressing. Nutritional rehabilitation was commenced in conjunction with the dietician. The underlying schizophrenia is being managed by the mental health physician and measures to improve adherence to antipsychotic medications were put in place.

### Conclusion

Gastric bezoars are a common finding especially among patients with psychotic disorders. Every effort must be put in place for the care givers and relatives to monitor them closely concerning what they eat. A multi-disciplinary management is essential in order to have a panoramic view of the problems at hand and also to achieve a better outcome.



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