

# Phytotherapy of chronic abdominal pain following pancreatic carcinoma surgery: a single case observation

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**Abstract:** A patient with pancreatic carcinoma diagnosed in 2005 suffered from chronic abdominal pain 6 years later that did not respond to conventional pain treatment according to guidelines. Furthermore, several complementary medical approaches remained ineffective. In the long run, only an *Iberis amara* drug combination relieved pain sufficiently. The drug is registered in Germany for the indications irritable bowel syndrome and dyspepsia. The multi-target approach of this combination drug may account for the effectiveness under these fundamentally different pathophysiological conditions. No serious undesired effects have been described in the use of this drug for other indications and none were observed in this case.

**Keywords:** *Iberis amara* combination, early dumping syndrome, late dumping syndrome

## Introduction

The treatment of gastrointestinal malignancies often requires major surgery, the consequences of which, along with the adverse effects of chemotherapy, pose serious therapeutic issues.

The patient discussed here suffered from pancreatic carcinoma diagnosed in 2005. The patient had undergone major surgery and six cycles of chemotherapy sessions 6 years prior to admission to our clinic. In addition to general loss of strength, chronic abdominal pain was a constant complaint and did not improve despite prolonged administration of morphine preparations.

After admission to the Department of True Naturopathy at Blankenstein Hospital, Hattingen, Germany, the patient was prescribed a naturopathic complex treatment.<sup>1</sup> After several treatment attempts, the patient reacted positively only to an *Iberis amara* drug combination that is commonly used for functional gastrointestinal disorders.<sup>2</sup>

## Case presentation

The 65-year-old patient had been operated on in September 2005 for a ductal pancreatic carcinoma (T1, N1, M0). The surgery included a cholecystectomy, partial gastrectomy with subtotal duodenopancreatectomy, and gastrojejunostomy. The patient then received, within the (European Study Group for Pancreatic Cancer)<sup>3</sup> six cycles of adjuvant chemotherapy. The study demonstrated that fluorouracil plus folinic acid was equal in effect to gemcitabine and that chemotherapy alone is superior to combined radio-chemotherapy.

Although stationary aftercare in November 2010 found no evidence of tumor recurrence and was without major pathological findings, the patient had been suffering since the operation from postprandial epigastric pain, meteorism, and evening

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hypoglycemia. At the time of naturopathic hospital admission, the patient complained of night sweats that had been occurring for several weeks. On physical examination, a soft abdomen with normal scar tissue was observed. Pain through palpitation was not present. No palpable resistance was detected. Peristalsis was active. Laboratory findings were unremarkable (before administration of the *Iberis amara* drug combination: leucocytes 3640/ $\mu$ L, hemoglobin 10.8 g/dL, thrombocytes 200,000/ $\mu$ L, international normalized ratio [INR] 1.08, aspartate transaminase [AST] 37 U/L, alanine aminotransferase [ALT] 22 U/L, gamma-glutamyl transpeptidase [GGT] 47 U/L, urea 23 mg/dL, creatinine 0.77 mg/dL, lipase 11 U/L; after 6 weeks of administration of the *Iberis amara* drug combination: leucocytes 4880/ $\mu$ L, hemoglobin 12.2 g/dL, thrombocytes 159,000/ $\mu$ L, INR 1.11, AST 38 U/L, ALT 17 U/L, GGT 24 U/L, urea 20 mg/dL, creatinine 0.65 mg/dL, lipase 25 U/L; after 9 months of administration of the *Iberis amara* drug combination: leucocytes 5930/ $\mu$ L, hemoglobin 12.3 g/dL, thrombocytes 183,000/ $\mu$ L, AST 36 U/L, ALT 15 U/L, GGT 40 U/L, urea 16 mg/dL, creatinine 0.82 mg/dL, lipase 4 U/L) except for some tumor marker values (before administration of the *Iberis amara* drug combination: carcinoembryonic antigen 10.7 ng/mL – marginally elevated [ $<3$ ; grey zone 3–10]; carbohydrate antigen 19–9 within normal range), as were the esophagogastroduodenoscopy and computed tomography scans of the abdomen and upper gastrointestinal X-ray series. The last prescribed medication consisted of pancreas powder ( $3 \times 40,000$  lipase units), pantoprazole (40 mg), and morphine drops (2.0%;  $3 \times 12$ ).

Both the postprandial pain as well as evening hypoglycemia were investigated in the pre-treating university hospital according to the valid scientific guidelines with respect to the possible differential diagnoses, and were interpreted as the consequence of early and late dumping syndrome. The university recommended the patient be transferred to Blankenstein Hospital for nutritional counseling and pain therapy with roborant hyperthermia treatment.

At the time of presentation in our department in July 2011, we observed that there had been no recurrence of the pancreatic carcinoma since 2005 and diagnosed dumping syndrome, severe night sweats, and psychophysical exhaustion. The patient suffered from frequent abdominal pain and received 15 drops of morphine before meals and ten drops of morphine after meals. Simultaneously, for purposes of quality of life, the patient received a mistletoe therapy, initially consisting of a phytotherapeutical mistletoe extract (Cefalektin<sup>®</sup>; Cefak KG, Kempten, Germany) then of an anthroposophical mistletoe

extract (Iscador<sup>®</sup>; Weleda, Schwäbisch Gmünd, Germany). This latter treatment led to a rash and severe itching. Because of malaise, abdominal pain, and bloating, the pancreas powder dosage was reduced ( $3 \times 25,000$  lipase units), without affecting stool consistency or amount.

## Treatment

As part of the naturopathic complex treatment, the patient received acupuncture, cupping therapy, and hyperthermia (hydroelectric baths) as well as medication.

The medication consisted initially (July 2011) of passion flower dry herb extract ( $3 \times 425$  mg), dry milk thistle extract (equivalent to  $2 \times 140$  mg silymarin), a combined anthroposophical cardiac drug ( $3 \times 10$  drops of Cardiodoron<sup>®</sup>; Weleda) and an anthroposophical mistletoe extract (AbnobaVISCUM<sup>®</sup> Pini; Abnoba Heilmittel GmbH, Pforzheim, Germany) in individualized doses. In September 2011, the patient received five hydroelectric baths. The analgesic medication consisted of a single dose of 25 drops of a combined phytotherapeutical tincture (Phytodolor<sup>®</sup>; Steigerwald Arzneimittelwerk GmbH, Darmstadt, Germany) or an hourly dose of ten drops if required. Fresh potato juice was also prescribed, which unfortunately the patient tolerated poorly. Because of itching, even at lower doses, the mistletoe preparation was changed to another anthroposophical mistletoe extract (AbnobaVISCUM quercus) after 5 months.

Due to persistent abdominal complaints since October 6, 2011, *Iberis amara* drug combination drops ( $3 \times 20$ ; Iberogast<sup>®</sup>, Steigerwald Arzneimittelwerk GmbH) were prescribed and this was found to be the only effective medication to decrease abdominal discomfort and maintain patient improvement. The improvement persisted throughout the follow-up period (9 months; July 19, 2012). The pain and its reduction were judged by clinical assessment and the patient's statements.

## Discussion

Due to the patient's complex chronic medical history, it was surprising that the only medication that improved the abdominal pain was the phytotherapeutic *Iberis amara* drug combination.

The *Iberis amara* drug combination is a clinically proven, multi-target herbal product, consisting of nine plant extracts with a broad spectrum of activity in treating gastrointestinal complaints.<sup>4,5</sup> This has been verified by a wide variety of experimental and clinical studies. Several effects are known to be attributable to single components of this drug combination

(*Angelica*: antispasmodic; caraway: antispasmodic, antimicrobial; celandine: prokinetic, tone-raising; German chamomile: tone-modulating, anti-inflammatory; *Iberis amara*: tone-modulating, anti-inflammatory; licorice: antispasmodic, anti-inflammatory; *Melissa*: antispasmodic, anti-inflammatory; milk thistle: digestive, antispasmodic; peppermint: antispasmodic, antiemetic).

Just a few minutes after taking the *Iberis amara* drug combination, normalization of disturbed gastric motility<sup>6</sup> and thus significant improvement of the pain symptoms<sup>7</sup> occurs. The *Iberis amara* drug combination increases the tone of the lower esophageal sphincter by forcing calcium to flow into the muscle cells, depolarizes smooth muscle cells in the small intestine,<sup>8</sup> decreases afferent sensitivity in the upper gastrointestinal tract,<sup>9</sup> and reduces the amplitude and frequency of contraction waves.<sup>8</sup> In addition, anti-ulcerogenic,<sup>10</sup> anti-inflammatory,<sup>11,12</sup> antioxidant,<sup>13–15</sup> pro-secretion,<sup>16</sup> pain and acid-regulating,<sup>10</sup> and spasmolytic effects<sup>17,18</sup> within the entire gastrointestinal tract have also been documented. Synthesis of prostaglandin E2, inhibition of leukotrienes, increased mucin secretion, and reduced gastric acid formation contribute to the anti-ulcerogenic effect. Normalization of tumor necrosis factor- $\alpha$ , interleukin 1- $\beta$ , and intercellular adhesion molecule 1 levels, glutathione synthesis, and reduction of the myeloperoxidase activity produce the anti-inflammatory properties. Inhibition of the calcium flow in the muscle cells promotes a spasmolytic action in the gastric fundus and the colon. Activation of the L-type calcium channels enhances contraction of the antrum muscle cells.<sup>19</sup> In all clinical trials, the positive effects of the drug<sup>20,21</sup> and excellent patient tolerance of the *Iberis amara* drug combination have been exhibited, displaying a distinct advantage over allopathic drugs.<sup>22,23</sup> The *Iberis amara* drug combination is the only drug approved in Germany for both the treatment of irritable stomach<sup>24,25</sup> and irritable bowel syndrome<sup>24,26</sup> and is listed in the irritable bowel syndrome guidelines of the German Society for Digestive and Metabolic Diseases<sup>27</sup> for both diseases.

While irritable bowel syndrome is characterized by abdominal pain with constipation and/or diarrhea in the absence of structural or biochemical causes, this patient's dumping syndrome is a typical consequence of operations involving removal of the pylorus. As in this case, after a Whipple's operation, the early stages of fluid intake in the small intestine lead to vasomotor disturbances. In the later stages, we found hypoglycemia with dizziness, tremors, and palpitations in response to an initial hyperglycemia due to rapid resorption in the small intestine in the absence of pre-digestion.

The multi-target approach of the *Iberis amara* drug combination apparently acts on several diseases with completely different pathophysiologies. The combined approach of different effects is a special feature of herbal medicines, which typically contain a mixture of ingredients. Apart from chemotherapy-induced mucositis in animal experiments<sup>28</sup> and drug-induced gastrointestinal disease,<sup>29</sup> there is very little published evidence outside the area of irritable bowel syndrome/dyspepsia that would allow comparison with the results presented here.

## Disclosure

The authors report no conflicts of interest in this work.

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