

Synopsis of Publications of Clinical-Pathological Conferences from the Medical University of Graz in Wiener Klinische Wochenschrift

1. Putz-Bankuti C. et al. CPC 131
"Elevated transaminases in a 30-year-old male"
Wien Klin Wochenschr 118: 769-775, 2006
Diagnosis: Familial hypobetalipoproteinemia
2. Fabian E. et al. CPC 151
"A 19-year-old student from Albania with emergency admission due to shock"
Wien Klin Wochenschr 127: 151-159, 2015
Diagnosis: Anaphylactic shock due to rupture of a hydatid cyst in the liver (Echinococcus granulosus)
3. Fabian E. et al. CPC 153
"A 55-year-old woman with atypical multiple sclerosis and irritable bowel syndrome"
Wien Klin Wochenschr 130: 151-160, 2018
Diagnosis: Fabry disease
4. Fabian E. et al. CPC 154
"A 32-year-old computer software engineer with nodular mass in the liver "
Wien Klin Wochenschr 128: 277-286, 2016
Diagnosis: Three neuroendocrine tumors of the ileum (G1, carcinoids) with metastases to mesenteric lymph nodes and the liver
5. Fabian E. et al. CPC 155
"A 26-year-old woman in third trimester of pregnancy with epigastric pain and thrombocytopenia"
Wien Klin Wochenschr 127: 707-714, 2015
Diagnosis: Acutely acquired antibody-mediated TTP with deficient ADAMTS-13 activity in late pregnancy leading to multiple organ failure
6. Fabian E. et al. CPC 156
"A 82-year-old woman with chronic diarrhea and weight loss of 20 kilograms"
Wien Klin Wochenschr 127: 974-980, 2015
Diagnosis: Olmesartan-associated sprue-like enteropathy
7. Fabian E. et al. CPC 159
"A 52-year-old patient with psoriasis and arthralgia of the finger joints"
Wien Klin Wochenschr 128: 946-953, 2016
Diagnosis: Hemochromatosis arthropathy
8. Fabian E. et al. CPC 160
"A 33-year-old woman with tetraparesis on Easter Sunday"
Wien Klin Wochenschr 128: 719-727, 2016
Diagnosis: Hypokalemic paralysis due to primary hyperaldosteronism (Conn syndrome)

9. Fabian E. et al. CPC 161
"A 42-year-old journalist with fatigue, elevated liver function tests, hyperglycemia and pruritus"
Wien Klin Wochenschr 130: 545-556, 2018
Diagnosis: Autoimmune pancreatitis type 1 (IgG4 negative) with associated leukocytoclastic vasculitis

10. Fabian E. et al. CPC 162
"A 30-year-old woman from Nigeria with fever 3 months postpartum"
Wien Klin Wochenschr 129: 145-152, 2017
Diagnosis: Lymph node tuberculosis, tuberculosis-associated vasculitis mimicking polyarteritis nodosa

11. Fabian E. et al. CPC 164
"A 46-year-old man with abdominal pain, dyspnea and rapidly progressing multiorgan failure"
Wien Klin Wochenschr 133: 731-740, 2021
Diagnosis: Leptospirosis

12. Fabian E. et al. CPC 168
"A 28-year-old Syrian refugee with severe abdominal pain and eosinophilia"
Wien Klin Wochenschr 130: 581-588, 2018
Diagnosis: Strongyloidiasis

13. Fabian E. et al. CPC 169
"A 32-year-old woman with anemia in pregnancy"
Wien Klin Wochenschr, 132: 322-331, 2020
Diagnosis: Celiac disease

14. Bauer PK. et al. CPC 170
"A 33-year-old psychologist with severe dyspnea and right-sided chylothorax"
Wien Klin Wochenschr, 133: 65-72, 2021
Diagnosis: Lymphangioliomyomatosis

15. Fabian E. et al. CPC 171
"A 37-year-old engineer with bolus hold-up (esophageal food impaction)"
Wien Klin Wochenschr, 132: 551-559, 2020
Diagnosis: Eosinophilic esophagitis

16. Bauer PK. et al. CPC 172
"A 45-year-old truck driver with fever, vomiting, thrombocytopenia and renal failure"
Wien Klin Wochenschr, 133: 1222-1230, 2021
Diagnosis: Puumala-(hantavirus) infection

17. Fabian E. et al. CPC 173

“A 77-year-old patient with adenocarcinoma of the prostate, liver metastases and watery diarrhea“

Wien Klin Wochenschr, 133: 515-522; 2021

Diagnosis: VIPoma

18. Bauer PK. et al. CPC 174

“A 25-year-old pregnant woman from Afghanistan with headache and a blast flag in the automated differential blood count“

Wien Klin Wochenschr, 132: 403-409, 2020

Diagnosis: Tertian malaria

The title pages of 18 publications are attached

Jan 16, 2022

Clinical-Pathological Conference Series from the Medical University of Graz**Case No. 131: Elevated Transaminases in a 30-year-old Male****Csilla Putz-Bankuti¹, Christian Datz⁴, Winfried März³, Carolin Lackner², Rudolf E. Stauber¹,
Michael Trauner¹, Hermann Toplak¹, Tatjana Stojakovic³, and Guenter J. Krejs¹**¹ Department of Internal Medicine, Medical University of Graz, Austria² Department of Pathology, Medical University of Graz, Austria³ Department of Laboratory Medicine, Medical University of Graz, Austria⁴ State Hospital, Oberndorf, Austria**Presentation of Case**

Dr. Putz-Bankuti: A 30-year-old male Slovenian production line worker in an automobile factory was referred 5 years ago for evaluation of elevated serum transaminases (GPT 57 U/l [<23], GOT 25 U/l [<19]) and suspected viral hepatitis C to the Outpatient Liver Clinic of this University Medical Center. He complained of occasional epigastric fullness and intermittent light-colored stool. There had been an episode of melena two months before presentation. Due to a history of duodenal ulcer, endoscopy had been planned but apparently was not performed. Other laboratory findings were as follows: all hepatitis C markers including PCR negative, immunopathological serum profile with antinuclear, anti-smooth muscle and anti-mitochondrial antibodies negative, γ -GT 9 U/l (<29), LDH 163 U/l (<240), total bilirubin 1.0 mg/dl (0.1–1.2), complete blood count unremarkable, normal serum electrolytes, urea and creatinine, total protein 8.2 g/dl (6.6–8.3), serum albumin 4.8 g/dl (3.5–5.3), ceruloplasmin 0.25 g/l (0.22–0.61), α 1-antitrypsin 1.2 g/l (0.9–2.9), IgG, IgA, IgM quantitatively within normal limits, hepatitis-A antibodies including IgM negative, hepatitis B: total profile negative, α -fetoprotein 4.6 ng/ml (<15), total serum cholesterol 72 mg/dl (<200), triglycerides 31 mg/dl (<150), serum iron 137 mg/dl (50–160), ferritin 62 ng/ml (34–310), transferrin 2.1 g/l (2.0–3.6), transferrin saturation 47% (16–45), carbohydrate-deficient transferrin (CDT) 1.6% (<2.6), TSH1, fT4 und fT3 within normal limits. A special immune pathological panel to search for liver-related autoimmunity (performed by Prof. Penner in Vienna) was negative. Abdominal sonography showed inhomogeneous echo texture of the liver parenchyma con-

sistent with steatosis and no other abnormality. There was no history of alcohol or drug intake. The patient's body weight was 83 kg, height 177 cm, BMI 26.5 kg/m². The assessment was steatosis of unclear etiology. No further treatment was ordered and the patient was asked to return for a follow-up examination in 6 months.

The patient returned to the liver clinic three years prior to admission, i.e. 2 years after his first presentation. Serum iron was elevated at 208 mg/dl, transferrin was 1.98 g/l and transferrin saturation was elevated at 74%. GOT 18 U/l, GPT 48 U/l, ceruloplasmin 0.21. Sonographically, splenomegaly was recognized for the first time with 16 cm as the longest axis of the spleen. Slit-lamp examination did not reveal Kayser-Fleischer's corneal ring. Genetic analysis for hemochromatosis was negative (no evidence for the C282Y or H63D mutations), as it was for Wilson's disease (H1069Q mutation of the ATP7B gene was ruled out). As far as symptoms were concerned, the patient complained of increasing fatigue and his physicians in the liver clinic decided to perform liver biopsy. Biopsy showed steatosis (Fig. 1) without evidence of inflammation or fibrosis; copper and iron in liver tissue were within normal limits quantitatively. Steatosis amounted to 50% of the total parenchyma. The patient's body weight was now 90 kg with a BMI of 28.7. His diagnosis was still steatosis of unknown etiology and he was again seen at the liver clinic one year prior to admission. Transaminases were elevated, GPT 293 (<45), GOT 101 (<35 , upper limit of normal had changed in comparison to prior analysis due to a change in laboratory methods), triglycerides 39, total cholesterol 75, ceruloplasmin 0.2. Since his overweight was considered to be a possible etiological factor, weight reduction was recommended. The patient was compliant and lost 8 kg. At a body weight of 82 kg with a BMI of

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Case No. 151: 19-year-old student from Albania with emergency admission due to shock

Elisabeth Fabian · Christian Madl · Sabine Horn · Peter Kornprat · Ralph Maderthaler · Ariane Aigelsreiter · Robert Krause · Peter Fickert · Guenter J. Krejs

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Presentation of case

Keywords Hydatid cyst rupture · *Echinococcus granulosus* · anaphylactic shock

Dr. S. Horn: On the day of admission, the previously healthy 19-year-old student from Albania felt sick and vomited three times. She experienced a hot flash, flicker-

ing in the visual field, and a macular rash on her abdomen, followed by loss of consciousness. The emergency physician gave her a Glasgow Coma Score (GCS) of 3. On route to the hospital, she became hypotensive. When the electrocardiography showed tachycardic supraventricular arrhythmia and fibrillation, cardioversion was performed. She was then hemodynamically stable on admission to the intensive care unit but subsequently developed fever and laboratory evidence of inflamma-

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Case No 153: A 55-year-old woman with atypical multiple sclerosis and irritable bowel syndrome

Elisabeth Fabian · Dietmar Schiller · Hermann Toplak · Michaela Brunner-Krainz · Franz Fazekas · Rainer Schoefl · Guenter J. Krejs

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Keywords Fabry disease · Atypical multiple sclerosis · Irritable bowel syndrome

Presentation of case

Dr. D. Schiller: A 55-year-old retired female secretary was admitted to hospital due to vague abdominal pain and diarrhea (three mushy stools per day) during the last 8 months. She had neither fever nor reduced appetite and had not lost weight. She is married, has two healthy children, has never travelled outside Europe and does not smoke or drink alcohol. Her

medical history includes repeated episodes of neurological symptoms, including transitory paresis of the left arm, vertigo and disturbed equilibrium. Once she also experienced transient paresthesia of the left leg. Magnetic resonance imaging (MRI) of the head during the last 10 years revealed slightly progressing white matter lesions. Cerebrospinal fluid (CSF) showed 50 cells/μl (85% lymphocytes, 15% monocytes) and increased concentration of protein (75 mg/dl, normal: 15–40 mg/dl), but without oligoclonal bands. Based on these findings, atypical multiple sclerosis (MS) was diagnosed. Therapy with glucocorticoids for 9 months had shown a temporary positive effect, but a therapeutic trial with interferon-beta 1a was futile.

For many years the patient suffered from headaches, arthralgia, diffuse myalgia and fatigue without signs of inflammation. Several neurological and rheumatological consultations failed to provide a clear diagnosis. At the age of 49 years the patient took premature disability retirement.

Arterial hypertension had been treated with lisinopril (5 mg per day) for the last 7 years. The dosage of lisinopril was increased to 10 mg per day 2 months before admission because the 24 h ambulatory blood pressure measurement gave a mean pressure of 150/95 mmHg. The patient did not take any other medication.

On admission physical examination was without pathological findings except for pain on deep abdominal palpation but there was no guarding or rebound phenomenon. There was no hepatomegaly or splenomegaly. Skin and mucous membranes were unremarkable. Results were normal or negative for extensive laboratory tests, stool cultures, fecal calprotectin, abdominal ultrasonography, chest and ab-

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Case No 154: 32-year-old computer software engineer with nodular mass in the liver

Elisabeth Fabian · Bernhard Haas · Patrizia Kump · Rainer Lipp · Peter Kornprat · Andre Lutfi · Emina Talakic · Michael Fuchsjäger · Walter Spindelboeck · Carolin Lackner · Gernot Zollner · Guenter J. Krejs

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Keywords Flush · Neuroendocrine tumor · Liver resection · Somatostatin analog · Portal vein embolization · Carcinoid

Presentation of case

Dr. W. Spindelboeck: Due to episodic epigastric pain this 32-year-old woman had undergone computed tomography (CT) 20 months previously. Contrast enhanced CT showed a hypodense lesion between liver segments IV and VIII with a diameter of 4 cm and inhomogenous

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 155: 26-year-old woman in third trimester of pregnancy with epigastric pain and thrombocytopenia

Elisabeth Fabian · Florian Eisner · Ingrid Pabinger · Christian Viertler · Sigrid Regauer · Andreas Lueger · Peter Neumeister · Eva-Christine Weiss · Wolfgang Schöll · Uwe Lang · Florian Prüller · Guenter J. Krejs

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Presentation of case

Keywords TMA (thrombotic microangiopathy) · TTP (thrombotic thrombocytopenic purpura) · HUS (hemolytic uremic syndrome) · ADAMTS-13 · Complicated pregnancy · Plasmapheresis

Dr. F. Eisner: Due to epigastric pain, the unemployed pregnant woman had been examined at the outpatient clinic of the Styrian Public Health Service 2 months

earlier. At that time, all laboratory tests were reportedly within normal limits and the epigastric pain was said not to be unusual during pregnancy. However, when the symptoms became more severe, she presented at the Obstetrics Outpatient Clinic at the University Medical Center in Graz, where thrombocytopenia with a platelet count of 9 G/l (normal: 140–440 G/l) was diagnosed. Other laboratory test results were: leukocytes 15.6 G/l (normal: 4.4–11.3 G/l), erythrocytes 2.4 T/l (normal: 4.1–5.1 T/l), hemoglobin (Hb) 7.8 g/dl (normal: 12.0–15.3 g/dl), hematocrit (Htc) 20.9% (normal: 35–45%), mean cor-

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Case No 156: 82-year-old woman with chronic diarrhea and weight loss of 20 kilograms

Elisabeth Fabian · Dietmar Schiller · Heimo Wenzl · Carolin Lackner · Josef Donnerer · Alexander Ziachehabi · Rene Silye · Rainer Schöfl · Guenter J. Krejs

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Presentation of case

Keywords Chronic diarrhea · Sprue · Subtotal villous atrophy · Olmesartan · Drug-associated enteropathy · Adverse drug effect · Delayed hypersensitivity reaction · Hypokalemia

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Dr. D. Schiller: After two previous hospitalizations, an 82-year-old woman was readmitted with chronic diarrhea of 8-month duration and weight loss of 20 kg. This had left her so weak that she could no longer look after herself.

The watery diarrhea had started 8 months before and sometimes was worse at night. She had up to 12 bowel movements per day without abdominal pain and had lost her appetite. Duodenal biopsies revealed subtotal villous atrophy with crypt hyperplasia and increased intraepithelial lymphocytes (40 per 100 epithelial cells). Tissue transglutaminase antibodies and serum anti-endomysial antibodies were negative. Serum immunoglobulins (IgG, IgA, and IgM), thyroid stimulating hormone (TSH), differential blood count, anti-HIV antibody, ova and parasites in stool (three times), colonoscopy with multiple biopsies, capsule endoscopy of the small bowel, and abdominal computerized tomography were all negative or normal. Biopsies from ileoscopy showed changes similar to the proximal small bowel. Human leukocyte antigen (HLA)-DQ2 (positive) and DQ8 (negative) genotyping were compatible with celiac disease. Intestinal lymphocytes showed no T-cell receptor rearrangement. A strict gluten-free diet did not ameliorate the diarrhea but it improved slightly under budesonide medication. Finally, during this third hospitalization, a diagnosis of “refractory sero-negative celiac disease” was established.

Her medical history was positive for paroxysmal atrial fibrillation, hypertension, hypothyroidism following autoimmune thyroiditis and chronic depression. Her history was negative for previous gastrointestinal com-

Clinical-Pathological Conference Series from the
Medical University of GrazCase No 159: 52-year-old patient with psoriasis and arthralgia of
the finger jointsElisabeth Fabian · Dietmar Schiller · Winfried Graninger · Cord Langner · Johannes Frei · Helmut Schoellnast ·
Vedat Alibegovic · Rudolf Stauber · Rainer Schoefl · Guenter J. KrejsReceived: 15 February 2016 / Accepted: 6 April 2016 / Published online: 30 June 2016
© The Author(s) 2016. This article is available at SpringerLink with Open Access.**Keywords** Hemochromatosis · Arthralgia · Cystic bone changes**Presentation of case**

Dr. D. Schiller: Since age 18 the patient had suffered from mild psoriasis that was treated with intermittent courses of topical corticosteroids. For the past 5 years he had complained of pain in his finger joints aggravated by manual work. The patient worked in an office and denied morning stiffness, back pain, repetitive strain injury related to leisure activities, enthesiopathy, gout or inflammation of the eyes. His family history was unrevealing. For the past 3 years he had taken lisinopril and hydrochlorthiazide for arterial hypertension.

An ileocolonoscopy due to diarrhea 5 months prior to admission showed diffuse mucosal erythema of the descending and sigmoid colon. Biopsies showed nonspecific inflammation with slightly increased

eosinophils in the lamina propria. Esophagogastroduodenoscopy with gastric and duodenal biopsies yielded normal results; the hydrogen breath test suggested lactose intolerance. His diarrhea resolved with a lactose-poor diet and 5-aminosalicylic acid (5-ASA, 3 g per day for 3 months).

After an exacerbation of his psoriasis had persisted for 4 weeks he was admitted with pustules and progressive diffuse erythrodermia covering about 80 % of his body. The pustules were round with desquamating margins. On physical examination he was afebrile; his weight was 83 kg and height 178 cm. The finger- and toenails appeared normal. Several finger joints and the metacarpophalangeal (MCP) joints of both index and middle fingers were swollen and indurated without hyperthermia or erythema.

Routine laboratory tests, including a complete blood count, liver and renal function tests, erythrocyte sedimentation rate, C-reactive protein (CRP) as well as antinuclear antibodies (ANA), anti-cyclic citrullin-

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 160: 33-year-old woman with tetraparesis on Easter Sunday

Elisabeth Fabian · Dietmar Schiller · Andreas Tomaschitz · Cord Langner · Stefan Pilz · Stefan Quasthoff · Reinhard B. Raggam · Rainer Schoefl · Guenter J. Krejs

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Keywords Primary aldosteronism · Conn syndrome · Hypokalemic paralysis

Presentation of case

Dr. D. Schiller: During the preceding 4 weeks the patient noticed progressive weakening in all four extremities, first in the upper extremities and the shoulder girdle and then in the lower extremities, causing three falls during the 2 days before admission on Easter Sunday, when tetraparesis was diagnosed in the emergency room. On admission the patient (height 161 cm, weight 71 kg) was alert, oriented and afebrile. Muscle strength was graded 1–2 (grade 0 = total paralysis, grade 5 = normal muscle contraction against full resistance) in all four extremities. Sensory function was normal in all extremities and cranial nerve function was unremarkable. Blood pressure was 180/100 mmHg with a regular pulse of 88 beats per minute. The rest of the physical examination was normal. The patient denied double vision, dysphagia and dysarthria, myalgia, dysuria, dyschezia and recent trauma (except for the three falls shortly before admission), but she had experienced polyuria for the last 2 years. Arterial hypertension had been diagnosed 4 years previously and treated with carvedilol 25 mg and ramipril/hydrochlorothiazide 5/25 mg q.d. Electrocardiography showed sinus rhythm with normal P waves and QRS complexes but clearly flattened T waves in the presence of U waves. Magnetic resonance imaging (MRI) of the brain, the cervical spine and the medulla was normal. Cerebrospinal fluid analysis did not show pleocytosis or increased protein concentration. Further laboratory results: normal red and white blood cell counts except for neutrophilic granulocytosis (16.8 g/l), sodium 144 mmol/l (normal: 132–145 mmol/l), potassium 1.5 mmol/l (nor-

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 161: A 42-year-old journalist with fatigue, elevated liver function tests, hyperglycemia and pruritus

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Keywords Autoimmune pancreatitis type 1 · IgG4 · Cholestasis · Total pancreatectomy · Leukocytoclastic vasculitis

Presentation of case

Dr. C. Putz-Bankuti: The patient, a 42-year-old white male, had been admitted to another teaching hospital for renal colic and subsequent shockwave lithotripsy 2 years before first presenting at the Out-patient Clinic for Gastroenterology and Hepatology at the University Medical Center in Graz. At that time, elevated liver function tests had been known

for years and were attributed to hepatic steatosis: total bilirubin 2.5 mg/dl (normal: 0.1–1.2 mg/dl), direct bilirubin 1.8 mg/dl (normal: 0–1.0 mg/dl), alkaline phosphatase 813 U/l (normal: 35–105 U/l), gamma-glutamyl transferase (GGT) 1153 U/l (normal: <38 U/l), aspartate amino transferase (AST) 581 U/l (normal: <30 U/l), alanine amino transferase (ALT) 1294 U/l (normal: <35 U/l), lactate dehydrogenase (LDH) 334 U/l (normal: 120–250 U/l). Computed tomography (CT) of the abdomen revealed liver parenchymal fibrosis and steatosis, cholecystolithiasis, localized thickening of the wall of the common bile duct probably following previous cholangitis and

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 162: A 30-year-old woman from Nigeria with fever 3 months postpartum

Elisabeth Fabian · Bruno Schneeweiss · Thomas Valentin · Holger Flick · Ariane Aigelsreiter · Rainer Hofmann-Wellenhof · Lorenzo Ceroni · Anna Maria Goritschan · Hans-Peter Brezinsek · Sabine Zitta · Alexander Rosenkranz · Winfried Graninger · Guenter J. Krejs

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Keywords Lymph node tuberculosis · Mycobacterium tuberculosis · Polyarteritis nodosa · Tuberculosis drug therapy

Presentation of case

Dr. A.M. Goritschan: The black African patient had immigrated from Lagos, Nigeria 18 months before admission to Austria to join her husband, who had immigrated to Austria 13 years earlier. Her travel history was negative since arrival in Austria; her medical history was positive for arthralgia and a skin rash 2 years earlier, when she was still living in Nigeria. These symptoms were treated with unspecified injections and oral medication for 5 days. The symp-

toms subsided when she became pregnant with her first child. After an unremarkable pregnancy and 4 months before the current admission she gave birth to a second healthy child. The patient attended the dermatology outpatient clinic 3 weeks before admission because of a skin rash on her back and fever. She was diagnosed with folliculitis and an ointment with a combination of betamethasone and gentamicin was prescribed for topical treatment. The rash appeared on the hands and feet of the breast feeding woman 2 weeks later with small skin lesions that exsiccated after secretion of a milky exudate. The patient reported fever, mainly during the night and some improvement with paracetamol. An enlarged firm lymph node was palpable in the left axilla. Serol-

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 164: A 46-year-old man with abdominal pain, dyspnea and rapidly progressing multiorgan failure

Elisabeth Fabian · Christoph Wenisch · Florian Eisner · Tina Muhr · Philipp K. Bauer · Kurt Prein · Urša Maierhofer · Sigurd F. Lax · Robert Krause · Gernot Zollner · Wolfgang Weihs · Guenter J. Krejs

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Keywords Leptospirosis · Weil's disease · Pseudoacute abdomen · Myocarditis · Renal failure

Presentation of case

Dr. T. Muhr: This is a case of a 46-year-old patient from France who was working as an IT coach and network supervisor. Nine days before his trip to Graz, Austria, he had taken a walk with his 8-year-old son in the surroundings of Strasbourg, in the Alsace region. During this tour, he suffered a small wound (probably due to an insect bite) on his left forearm. Two days before he came to Graz, both the patient and his son had had a sore throat and fever for one day. On the day he left France, he made a ham and cheese sandwich, which he had also consumed the following

day. On his 3rd day in Graz, the patient complained of abdominal discomfort and pain for which he took diclofenac. Except for this drug, he had not taken any other medication. The history of the patient was negative for allergies, cigarette smoking, alcohol and drug abuse; he did not have any pets. On the 4th day in Graz, his medical condition worsened; he suffered from increasing abdominal pain, two episodes of diarrhea (but no vomiting) and dyspnea, and collapsed in his hotel room.

The patient was admitted to the emergency room (ER) in a state of shock; his blood pressure was 95/45 mmHg, pulse rate 99 beats per minute, oxygen saturation 86% at room air, body temperature 36.8 °C. His skin was marbled, cyanotic and his back was livid;

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 168: A 28-year-old Syrian refugee with severe abdominal pain and eosinophilia

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Keywords Strongyloides stercoralis · Strongyloidiasis · Hyperinfection syndrome · Abdominal pain

Presentation of case

Dr. P. Kump: When the patient, a Syrian refugee, presented at the emergency department of the Medical University of Graz, he had already been in Austria for 2.5 years. A language barrier made it difficult to

obtain a complete history. The patient had sought medical attention 3 days earlier at another hospital for epigastric pain of 2 weeks duration that increased after meals. Pantoprazole and sucralfate did not alleviate the epigastric pain. The patient presented at the emergency department of the Medical University of Graz with persistent abdominal pain 1 day prior to admission. Physical examination revealed blood pressure of 125/81 mm Hg, a regular pulse of 60 per min, temperature 35.0 °C, soft abdominal wall and epigastric tenderness on deep palpation. Except for eosinophils 7% (normal: up to 5%), eosinophils absolute $0.7 \times 10^9/l$ (normal: up to $0.7 \times 10^9/l$) and lactate dehydrogenase (LDH) 287 U/l (normal: 120–240 U/l), laboratory results were unremarkable. The C-reactive protein (CRP) level was 1.2 mg/l (normal: up to 5.0 mg/l) and liver function tests were normal. Ultrasonography of the liver, the biliary tree, the spleen and the kidneys was unremarkable; the pancreas was not seen. Gastroscopy showed patchy erythema in the antrum, with minimal chronic inactive gastritis on histology. Biopsies from the antrum and corpus were negative for *Helicobacter pylori*. There were coarse folds in the duodenum and on endoscopic magnification the villous structures appeared to be diminished (Fig. 1). Since the patient was uncooperative and increasingly agitated, the procedure had to be terminated before duodenal biopsies could be obtained. Antibodies for serum anti-tissue transglutaminase were negative. The patient was sent home and advised to continue the proton pump inhibitor at double the standard dose and to take scopolamine butylbromide as needed. The next day, however, the patient returned when a banana he had eaten exacerbated the abdominal pain. Bowel

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Clinical-Pathological Conference Series from the
Medical University of Graz

Case No 169: A 32-year-old woman with anemia in pregnancy

Elisabeth Fabian · Christoph Tinchon · Andreas Lueger · Philipp K. Bauer · Karoline I. Mayer-Pickel · Reinhold B. Raggam · Heinz F. Hammer · Cord Langner · Guenter J. Krejs

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© The Author(s) 2020**Keywords** Celiac disease · Iron deficiency anemia · Vitamin D deficiency · Vitamin K deficiency · Hyposplenism**Presentation of case**

Dr. A. Lueger: The patient came to Austria as a refugee during the Yugoslav Wars 25 years ago. She was in the 7th week of pregnancy when her husband brought her to the emergency room (ER) of the Graz University Medical Center at 3 o'clock in the morning due to increasing dyspnea. She also complained of a dry cough but there was no fever. She had had a miscarriage 7 months previously and 3 years earlier, the patient had had a cesarean section at 40 weeks of gestation due to fetal distress. A healthy infant was delivered, weighing 3290 g and measuring 52 cm in length. At that time the hemoglobin before the cesarean section was 11.0 g/dL (normal: 12.0–15.3 g/dL), the mean corpuscular volume (MCV) was 82.8 fL (normal: 80–98 fL) and hemoglobin after delivery was 9.2 g/dL. On the current admission, she did not complain of any pain

and there was no history of a vaginal discharge. She had no known allergies, and the only medication she took was oral replacement of folic acid and iron. Iron deficiency was said to have been present since youth but was never investigated. The electronic hospital record system also showed that she had come to the ER 16 months prior to admission because of fatigue, lassitude and exhaustion. The hemoglobin then was 10.4 g/dL, serum iron was 16 µg/dL (normal: 50–160 µg/dL) and ferritin 6 ng/mL (normal: 30–150 ng/mL). She received intravenous iron, and a work-up of the anemia was recommended, but not pursued by the patient. Physical examination revealed a slimly built person (55 kg, 170 cm, body mass index, BMI 19.0 kg/m²), blood pressure 110/80 mm Hg, heart rate 140 bpm, temperature 37.2 °C, O₂ saturation 100% in room air and pale skin. There was no pulmonary or cardiac abnormality. Electrocardiogram showed sinus tachycardia. Laboratory results: hemoglobin 8.3 g/dL, MCV 60.3 fL, reticulocytes 13.9% (normal: 5–20%), leukocytes 9.6 × 10⁹/L (normal: 4.4–11.3 × 10⁹/L), platelets 322 × 10⁹/L (nor-

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 170: A 33-year-old psychologist with severe dyspnea and right-sided chylothorax

Philipp K. Bauer · Martin Flicker · Elisabeth Fabian · Holger Flick · Luka Brcic · Bernadette Liegl-Atzwanger · Michael Janisch · Michael Fuchsjäger · Horst Olschewski · Guenter J. Krejs

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Keywords Cystic lung disease · Lymphangioliomyomatosis · VEGF-D · Sirolimus

Presentation of case

Dr. H. Flick: A 33-year-old psychologist complained of palpitations and the feeling of tightness in her chest, dyspnea on exertion (and sometimes even dyspnea at rest) since 1 week ago. She has been

taking hormonal therapy (progesterone/lynestrenol) because of endometriosis for the last 2 years. Her pulmonologist referred her to the emergency room (ER) of Graz University Medical Center because of rapidly progressive dyspnea and suspected pulmonary embolism. A mass had been detected in the retroperitoneum and biopsied in a hospital in another state 2 months prior to admission. Results of the biopsy were not available. Physical examination on admission was unremarkable except for complete dullness over the right lung on percussion. Blood pressure was 120/80 mm Hg, heart rate (HR) 138 beats per minute (bpm), temperature 36.0 °C, oxygen saturation at ambient air 95%. Electrocardiogram showed sinus tachycardia (HR 117 bpm), S1Q3 type, and P waves and PQ interval were unremarkable. Transthoracic echocardiography revealed normal aortic, mitral and tricuspid valves. The pulmonic valve was not assessable, tricuspid annular plane systolic excursion was reduced at 0.8 cm. When moving the sonography sensor to the abdomen, no ascites was seen. Laboratory tests: leukocytes $15.36 \times 10^9/L$ (normal: $4.4\text{--}11.3 \times 10^9/L$), hemoglobin 16.8 g/dL (normal: 12–15.3 g/dL), hematocrit 50.3% (normal: 35–45%), gamma-glutamyl transferase 63 U/L (normal: <38 U/L), C-reactive protein (CRP) 7.5 mg/L (normal: <5.0 mg/dL), D-dimer 2.18 mg/L (normal: <0.5 mg/L).

X-ray and computed tomography (CT) of the chest revealed a massive pleural effusion on the right side. Immediate paracentesis in the ER yielded 1 L of a white turbid effusion. Detailed analysis see Table 1.

A diagnostic test was performed and specific treatment was initiated.

Dr. M. Fuchsjäger: The patient's chest X-ray showed subtotal opacity of the right lung with merely a resid-

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 171: A 37-year-old engineer with bolus hold-up (esophageal food impaction)

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Keywords Dysphagia · Eosinophilic esophagitis · Budesonide · Proton pump inhibitors

Presentation of case

Dr. L. Binder: The patient is a technical engineer working for a large international company. Except for recurrent episodes of dysphagia over the last 3 years, his history is unremarkable. He reports that “ingested food gets stuck behind his chest bone about once a month”. Originally from Brno, Czech Republic, he has been living in France for the past several years where he has been treated for dysphagia by otorhinolaryngologists who prescribed prokinetics,

a proton pump inhibitor (PPI) and neuroleptics; however, these medications did not improve his dysphagia. Finishing a meal would take him about twice as long as his wife. After moving to Graz, Austria 3 months ago, he again experienced a bolus hold-up (a piece of meat got stuck in his esophagus). Used to being treated by otorhinolaryngologists, the patient came to the emergency room of the Department for Otorhinolaryngology of this institution where the bolus was removed with the patient under general anesthesia using a rigid esophagoscope. The investigation also showed a questionable stenosis of the proximal esophagus with marked vulnerability of the mucosa. The patient was told that surgery might become necessary if esophageal injury or perforation has occurred, and he was admitted for observation. The physical examination was otherwise unremarkable and all routine laboratory parameters were within normal limits.

A diagnostic test was performed.

Differential diagnosis

Dr. H.P. Gröchenig: The patient under discussion is a young man with a history of dysphagia and recurrent food impaction, which may be due to a stenosis of the esophagus with remarkably increased vulnerability of the mucosa seen on endoscopy. Prokinetics, PPIs and neuroleptic drugs did not improve his condition. Dysphagia is defined as a sensation of sticking or obstruction of the passage of food through the mouth, pharynx or esophagus and should be distinguished from other symptoms, such as aphagia and odynophagia. Aphagia is the complete esophageal obstruction, which is usually due to bolus impaction and represents a medical emergency. Odynophagia means pain on swallowing and frequently occurs together with dysphagia [1]. The prevalence of any type

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Clinical-Pathological Conference Series from the
Medical University of GrazCase No 172: A 45-year-old truck driver with fever, vomiting,
thrombocytopenia and renal failurePhilipp K. Bauer · Robert Krause · Elisabeth Fabian · Marja-Liisa Aumüller · Dietmar Schiller · Gabriel Adelsmayr ·
Michael Fuchsstätter · Ernst Rechberger · Rainer Schöfl · Guenter J. KrejsAccepted: 6 July 2021 / Published online: 17 August 2021
© The Author(s) 2021**Keywords** Hantavirus · Hypophysitis · Pseudoacute abdomen · Capillary leak · Nephropathia epidemica**Presentation of case****Dr. D. Schiller:** The patient is a previously healthy 45-year-old truck driver from Upper Austria. Five days before Christmas he complained of fever up

to 39.0°C, epigastric pain and vomiting. He denied myalgia, headache, vertigo, hematochezia, melena, red-colored urine, dyspnea, hemoptea and chest pain. The patient's history was negative for drug abuse and travel abroad. Except for the patient, nobody in his community was affected by the described condition. On admission, the patient presented with fever (38.5°C), a blood pressure of 100/50 mmHg and an oxygen saturation of 95% at ambient air. Physical examination revealed moderate epigastric pain on palpation but it was otherwise unremarkable (including a cursory neurological examination and inspection of the skin and mucous membranes).

Laboratory data on admission: Hemoglobin 21.5 g/dL (normal: 12.0–15.3 g/dL), leukocytes 23.9 G/L (normal: 4.4–11.3 G/L) with left shift, platelets 31 G/L (normal: 140–440 G/L), C-reactive protein (CRP) 10.7 mg/dL (normal: <0.5 mg/dL), D-dimer 5.26 µg/mL (normal: <0.50 µg/mL), serum sodium 125 mmol/L (normal: 135–145 mmol/L), aspartate aminotransferase (AST) 55 U/L (normal: 5–34 U/L), alanine aminotransferase (ALT) 66 U/L (normal: <55 U/L), gamma glutamyl transferase (GGT) 125 U/L (normal: 12–64 U/L), lactate dehydrogenase (LDH) 369 U/L (normal: 125–220 U/L), creatinine 2.09 mg/dL (normal: 0.73–1.18 mg/dL) and lactate 7.02 mmol/L (normal: 0.50–2.20 mmol/L). Urinalysis revealed 250 erythrocytes/µL and 75 mg protein/dL. Serum values for glucose, amylase, lipase, thyroid-stimulating hormone (TSH), free triiodothyronine (fT3), free thyroxine (fT4), potassium, bilirubin, alkaline phosphatase, prothrombin time and fibrinogen were all normal.

Sonography and computed tomography (CT) of the abdomen showed mildly dilated intrahepatic bile ducts, moderate amounts of retroperitoneal fluid,

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 173: A 77-year-old patient with adenocarcinoma of the prostate, liver metastases and watery diarrhea

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Keywords VIPoma · Pancreatic cholera · Verner-Morrison syndrome · WDHH (watery diarrhea, hypokalemia, hypochlorhydria) syndrome · Hypokalemia

Presentation of case

Dr. D. Schiller: The patient was admitted because of watery diarrhea persisting for 2 months. He had been diagnosed with a grade 3 (G3) adenocarcinoma of the prostate 18 months earlier, Gleason score 9 (4+5) with blockage of the ureters leading to bilateral hydronephrosis and kidney failure. In addition to prostate cancer, computed tomography (CT) revealed extensive retroperitoneal lymphadenopathy and disseminated bone metastases, whereas the liver, spleen, pancreas, mediastinum and both lungs were unremarkable. Serum prostate-specific antigen (PSA) was over 1000 ng/mL (normal: <6.5 ng/mL). After

transurethral resection of the prostate (TURP), bilateral ureteral splinting and nephrostomy of the right kidney, serum creatinine decreased from 2.4 to 1.3 mg/dL (normal: 0.7–1.2 mg/dL). Serum electrolytes were all within normal limits. The oncological management included an initial dose of bicalutamide and continuous therapy with leuprolide acetate administered intramuscularly every 3 months. In addition, the patient was given denosumab subcutaneously once a month. While on this therapy, the PSA levels returned to normal and the enlarged lymph nodes markedly decreased in size. Subsequently, the bilateral ureteral splints could be removed and the patient became free of symptoms; however, about 2 months before the current admission he started to have watery diarrhea, which also persisted during the night. He did not complain of abdominal pain or reduced appetite. Ileocolonoscopy with multiple biopsies and stool cultures yielded unremarkable re-

Information Information on Clinical-Pathological Conferences from the Medical University of Graz are also available under <https://www.medunigraz.at/cpc-klinischpathologischekonferenz/> (in German).

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Clinical-Pathological Conference Series from the Medical University of Graz



Case No 174: A 25-year-old pregnant woman from Afghanistan with headache and a blast flag in the automated differential blood count

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Keywords Tertian malaria · Plasmodium vivax · Chloroquine · Primaquine · Pregnancy

Presentation of case

Dr. K.I. Mayer-Pickel: The patient speaks Pashto. Originally from the Laghman province in Afghanistan, she has been living in Austria for 4 months. Her

last menstruation was 4 months ago, now she is pregnant in the 15th week of gestation expecting twins. The patient's history is positive for one miscarriage; she and her husband are cousins, so they are blood related (consanguinity). Her travel history has been negative since she came to Austria. In the 13th week of gestation, a routine check-up in the obstetrics outpatient clinic of Graz University Medical Center revealed an unremarkable pregnancy with dichorionic diamniotic twins. In the 15th week of gestation, the patient again came to the outpatient clinic because of a cold, headache and cough. She was diagnosed with an upper respiratory tract infection and was given ambroxol, a saline nasal spray and paracetamol as needed. Laboratory data at that time showed: leukocytes $4.9 \times 10^9/L$ (normal: $4.4\text{--}11.3 \times 10^9/L$), erythrocytes $3.37 \times 10^{12}/L$ (normal: $4.10\text{--}5.10 \times 10^{12}/L$), hemoglobin 10.2 g/dL (normal: 12.0–15.3 g/dL), hematocrit 28.4% (normal: 35.0–45.0%), neutrophils 80% (normal: 50–75%), lymphocytes 13% (normal: 20–40%), platelets $196 \times 10^9/L$ (normal: $140\text{--}440 \times 10^9/L$), C-reactive protein (CRP) 28.9 mg/L (normal: <5.0 mg/L) and fibrinogen 516 mg/dL (normal: 210–400 mg/dL). In case of persistent complaints the patient was advised to come to the emergency room (ER) of Graz University Medical Center. Two weeks later, the patient presented in the ER with a retrosternal pressure sensation radiating into the left arm and back, a 2-week history of headache, fever (39.9°C), and poor appetite for 2 days. The patient showed tachycardia with a heart rate of 129 bpm. Echocardiography and Duplex sonography of the leg veins were unremarkable. Laboratory data: leukocytes $3.9 \times 10^9/L$, erythrocytes $2.94 \times 10^{12}/L$, hemoglobin 8.6 g/dL, hematocrit 25.1%, CRP 35.7 mg/L, lactate dehydrogenase (LDH) 261 U/L

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