

Pituitary apoplexy - a series of five cases

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Case report:

We report of five patients (4 male/1 female) aged 31 to 66 years who were admitted to our hospital from January 2009 to July 2010 with the final diagnosis of pituitary apoplexy. The main symptoms leading to admission were severe frontal headache, meningism and disturbance of vision in 3 patients, acute onset of temporal hemianopsia in 1 patient and galactorrhoe in 1 patient. MRI disclosed pituitary apoplexia in all patients with additional hemorrhages in 4/5. Pre-existing (and currently diagnosed) pituitary adenoma was present in all patients, in 4/5 hormonally inactive and in 1/5 makroprolactinoma. 2/5 patients were on treatment with oral anticoagulants. The assessment of the pituitary function revealed panhypopituitarism in 2/5 patients (one of them with diabetes insipidus); and deficiency of the gonadal axis was present in all patients. The thyroid axis was preserved in 1/5, the cortisol axis in 2/5, and the GH/IGF-1 axis in 3/5 patients. During a mean follow-up of 7.5 months there was a partial recovery of the gonadal axis in 2/5 patients, but replacement therapy is needed in all but 1/5 patients. The course of the MRI findings and the pituitary function are provided for all patients.

Comment:

Pituitary apoplexy may occur by the spontaneous infarction or hemorrhage in pre-existing pituitary adenomas which in 2/3 of the cases were not diagnosed before. Reasons for hemorrhage include rapid growth of pituitary adenoma, head trauma, pregnancy, anticoagulants, treatment with LH-RH analogues, hemodialysis and diabetic ketoacidosis. However, the majority of cases are without identifiable precipitants. The presentation is usually acute with severe headache and visual disturbances, occasionally with rapidly developing neurologic deficits, coma and death. Endocrine dysfunction after pituitary apoplexy is common. The need for emergent transsphenoidal surgical decompression is controversial, however, immediate glucocorticoid administration is mandatory.

Conclusion:

Acute severe headache, a preexisting pituitary adenoma and permanent hypopituitarism are predominant features of pituitary apoplexy.

Adherence to type 2 diabetes treatment recommendations issued by the Swiss Society for Endocrinology and Diabetes: a critical appraisal

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Background/Introduction:

Based on recommendations published by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD), an expert panel of hospital-based and practicing diabetologists published, on behalf of the Swiss Society for Endocrinology and Diabetes (SSED), a consensus statement for clinical care of type 2 diabetes mellitus (T2Dm) in January 2009. Their recommendations include a clinically feasible treatment algorithm aiming at a target level of glycated hemoglobin (A_{1c}) of ≤7%. Despite this, A_{1c} levels at or below target and optimal control of cardiovascular risk factors are often not achieved in clinical practice. This retrospective cohort study aims to evaluate, as primary outcome measures, quality of metabolic control and the adherence to the SSED recommendations for T2Dm in the year following their publication.

Methods:

We analyzed hospital charts of all patients with T2Dm admitted to our clinic between January 15 and December 31, 2009. Patients' general physicians (GPs) were contacted for information missing in the charts. We assessed metabolic control and adherence to treatment recommendations both prior to the admission (i.e. adherence by GPs) and during the hospital stay (i.e. by hospital staff). As secondary outcomes, we analyzed (i) diabetes-specific medications, (ii) presence or absence of screening for organ complications, (iii) presence or absence of medication for arterial vascular disease, (iv) presence or absence of target blood pressure levels, and (v) presence or absence of target LDL cholesterol levels. Patients with known T2Dm were analyzed separately from those newly diagnosed during the index hospitalisation. Exclusion criteria included dependence on professional help for everyday life and co-existing disease making survival of >6 months unlikely.

Results:

381 admissions were identified; 81 patients fulfilled exclusion criteria. 25 patients were newly diagnosed with T2Dm. In the remaining 275 patients (137 males, 138 females), baseline characteristics (mean ± SD) were: age, 74.2 ± 10.8 yr; weight, 79.2 ± 18.9 kg; GFR, 76.1 ± 39.8 ml/min; LDL, 2.55 ± 1.11 mM. A_{1c} levels were available from 257 patients (93%); mean A_{1c} was 7.66 ± 1.73 %. Only 114 cases (44%) showed A_{1c} at target levels. Of all patients with A_{1c} >7% on admission (143 cases, 56%), 74 (52%) had received a lifestyle intervention (LSI) and 64 (45%) a diabetes instruction (DI) during the year prior to admission - mostly by their family physicians; confirmed information on LSI and DI was unavailable in 41 (29%) and 49 (34%) cases, respectively. Of those with insufficient metabolic control, 75 patients (52%) received LSI and DI during hospitalization. Of all patients with A_{1c} above target, 85 (59%) were on metformin on admission and 24 were started during hospitalization, yielding 76% on metformin at discharge. A_{1c} on admission was >8.5% in 51 patients; 24 (47%) of these were already under insulin treatment, and 15 were started on insulin during hospitalization. Thus, 76% of patients with A_{1c} >8.5% left the hospital on insulin treatment.

Conclusion:

Less than half of unselected hospital-admitted type 2 diabetics showed A_{1c} target levels of ≤7%. SSED treatment recommendations were not yet implemented sufficiently in the year after their release. Therefore, continued efforts should be made to improve T2Dm management by practitioners and hospitalists alike.

Glucagon-like peptide-1 vs. somatostatin receptor targeting reveals two distinct forms of malignant insulinomas

Author/Address of institution:

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Background: Glucagon-like peptide-1 receptor (GLP-1R) imaging is superior to somatostatin receptor subtype 2 (sst₂) imaging in the preoperative localization of benign insulinomas. It is currently unknown whether GLP-1 and/or sst₂ receptor targeting are useful in the management of malignant insulinomas.

Objective: To test the GLP-1 and sst₂ receptor status *in vivo* and/or *in vitro* in patients with malignant insulinoma.

Design: This was a prospective open-label investigation.

Setting: Five tertiary referral centers in Switzerland, Germany and United Kingdom.

Patients: Twelve patients with proven endogenous hyperinsulinemic hypoglycemia and CT findings suspicious for malignancy were included.

Intervention: Patients underwent imaging with ¹¹¹In-DTPA-exendin-4 (GLP-1 analogue, 9 patients) and ⁶⁸Ga-DOTATATE (sst analogue, 7 patients). Furthermore patient's tumor tissue samples were used for *in vitro* GLP-1 and sst₂ receptor quantification (8 patients).

Main Outcome Measure: The detection rate of insulinomas and the receptor status were assessed.

Results: Eleven of twelve patients had a malignant insulinoma confirmed by histology (the twelfth patient had a benign insulinoma with metastasis from a salivary tumor). GLP-1R targeting was positive in 4/11 patients, whereas sst₂ receptor expression was positive in 8/11 patients. Each of the 11 malignant insulinomas expressed at least one of the two receptors. In 2 patients with GLP-1R-expressing tumors GLP-1R imaging was the only method that successfully localized the primary in the pancreas. In 3 patients with sst₂-expressing tumors, DOTATATE radiotherapy was effectively applied.

Conclusion: These data suggest the existence of two distinct forms of malignant insulinomas: a GLP-1R positive type and a GLP-1 R negative but sst₂ receptor positive type, with a higher incidence (>70%) of the second type.

Burden of disease attributable to obesity and overweight in Switzerland

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Background/Introduction:

Obesity increases the risk for cardiovascular risk factors (hypertension, dyslipidemia and type 2 diabetes). The contribution of overweight and obesity to those risk factors at the population level should be assessed using data from the same population.

Methods:

The number of cases of cardiovascular risk factors that could have been prevented if the increase in overweight and obesity in Switzerland had been contained were estimated using gender-specific, age and smoking-adjusted PAFs for overweight and obesity. PAFs were estimated from the Swiss Health Survey 2007 (self-reported) and the CoLaus study (measured) data.

Results:

PAFs calculated using self-reported data were lower than using measured data. Using measured data, overweight and obesity contributed to 38% of hypertension cases in men (32% in women). In men, being overweight contributed more to hypertension than obesity (22.2% and 15.6%, respectively), while the opposite was observed for women (13.6% and 18.1%, respectively). Also, 36% of dyslipidemia in men (30% in women) could be attributed to overweight and obesity. In both genders, being overweight had a higher contribution than being obese (21.2% and 15.2% in men; 15.9% and 14.3% in women, respectively). Lastly, 57% of type 2 diabetes in men (62% in women) was attributable to overweight and obesity, with obesity having a larger impact than overweight in both sexes (39.2% and 17.7% in men; 48.0% and 14.1% in women, respectively). Circa 61,500 cases of hypertension, 37,500 cases of dyslipidemia and 26,500 cases of type 2 diabetes could have been prevented if overweight and obesity levels were maintained at 1992 levels.

Conclusion:

In Switzerland, a large proportion of cardiovascular risk factors is attributable to overweight and/or obesity. A substantial amount of them could have been prevented by containing the overweight/obesity epidemic.

Jahresversammlung Assemblée annuelle

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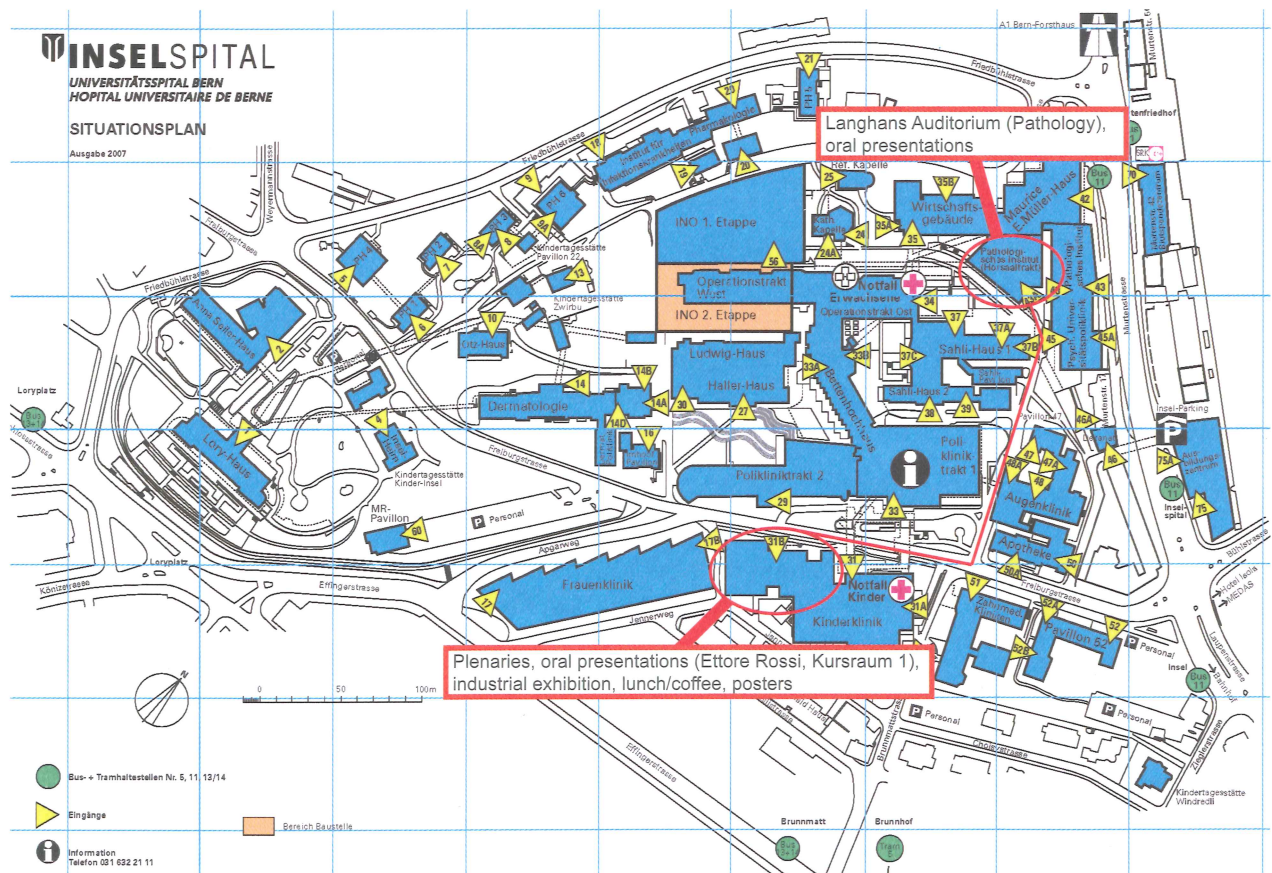
Schweizerische Gesellschaft für
Endokrinologie und Diabetologie - SGED

Société Suisse d'Endocrinologie
et de Diabétologie - SSED



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Association Suisse pour l'Etude du
Métabolisme et de l'Obésité

Schweiz. Arbeitsgruppe Metabolis-
mus und Obesitas



Schweizerische Gesellschaft für
Endokrinologie und Diabetologie

Société Suisse d'Endocrinologie
et de Diabétologie

Programme of the 5th Annual Meeting ASEMO-SAMO

Association Suisse pour l'Etude du Métabolisme et de l'Obésité
Schweiz. Arbeitsgruppe Metabolismus und Obesitas

(preceding the Annual Meeting of SGED)

Thursday, November 18, 2010, Inselspital Bern, Kinderklinik

Update lectures and new issues

Chairman: *Alain Golay*

9.15 – 10.00 **Overweight and obesity in Switzerland: costs and future prospects.**
Heinz Schneider, Basel

Research Communications

Chairmen: *Abdul Dulloo, Yves Schutz*

10.00 – 10.15 **Abstract 67 – PI3K γ in Non-Hematopoietic Cells Plays a Major Role in the Promotion of Obesity, Inflammation, and Glucose Intolerance**
Giovanni Solinas, Romina Marone, Barbara Becattini, Fabio Zani, Abdul G. Dulloo, Jean-Pierre Montani, Frederic Preitner, Matthias P. Wymann; Fribourg, Basel, Lausanne

10.15 – 10.30 **Abstract 1 – Skeletal muscle insulin resistance and lipotoxicity: differential effects of diacylglycerols and ceramides**
Francesca Amati, Bret H. Goodpaster; Lausanne, Pittsburgh

10.30 – 10.45 **Abstract 33 – A multifactorial approach to prevent adiposity and improve fitness in predominantly migrant preschool children: cluster-randomized controlled trial (the Ballabeina Study)**
Puder JJ, Marques-Vidal P, Zahner L, Niederer I, Bürgi F, Ebenegger V, Hartmann T, Meyer U, Schindler Ch, Nydegger A, Kriemler S; Lausanne, Basel

10.45 – 11.00 **Abstract 25 – Cardiorespiratory fitness prevents the increase in blood pressure due to body fat in adolescents**
Gisela Marcelino, João Melich-Cerveira, Fred Paccaud, Pedro Marques-Vidal; Lisbon, Lausanne

11.00 – 11.30 Break with Coffee and Juice

Chairpersons: *Kurt Laederach, Anne Laurent-Jaccard*

11.30 – 12.15 **Obesity as cancer risk factor**
André-Pascal Sappino, Geneva

12.15 – 12.45 **Bariatric surgery : the final cure for diabetes?**
Ulrich Keller, Basel

12.45 End of the scientific ASEMO meeting

12.45 – 13.45 General Assembly of ASEMO for members

Access is free.

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Poster presentations

Friday, 19 November, 12.15 – 14.00

Ettore Rossi and U1

CLINICAL

- 2 **Case report of an incidentally discovered TSH-secreting pituitary adenoma**
Claudine A. Blum, Isabelle Suter, Luigi Mariani, Henryk Zulewski (Basel)
- 4 **Evaluating the Cost-Effectiveness of Self-Monitoring of Blood Glucose in Type 2 Diabetes Patients on Oral Anti-Diabetic Agents: A Long-Term Modeling Study in Switzerland**
M. Brändle, W.J. Valentine, G. Goodall, R.F. Pollock (St. Gallen, Basel)
- 5 **Pituitary apoplexy – a series of five cases**
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- 6 **Adherence to type 2 diabetes treatment recommendations issued by the Swiss Society for Endocrinology and Diabetes: a critical appraisal**
Konstantin Burgmann, Sandra A. Fatio, Beat Jordi, Jonas Rutishauser (Biel)
- 8 **Burden of disease attributable to obesity and overweight in Switzerland**
Carol Davin, Peter Vollenweider, Gérard Waeber, Fred Paccaud, Pedro Marques Vidal (Lausanne)
- 9 **Hyperthyreose und pulmonale Hypertonie**
Dürst Urs Niklaus, Binz Katharina, Brunschwig Thierry, Engel Hermann (Zollikon, Zürich)
- 10 **Relationship between adiposity, physical (in)activity, media use and eating habits in preschool children with degree of hyperactivity**
Vincent Ebenegger, Simone Munsch, Pedro-Manuel Marques-Vidal, Andreas Nydegger, Jérôme Barral, Tim Hartmann, Susi Kriemler, Jardena J. Puder (Lausanne, Basel)
- 13 **Challenges in the diagnosis of late dumping syndrome in patients post-bariatric surgery**
Lucie Favre, François Pralong, Nelly Pitteloud, Vittorio Giusti
- 14 **Diffuse nesidioblastosis with hypoglycemia mimicking an insulinoma: a case report**
Chiara Ferrario, Deplhine Stoll, Maurice Matter, Jardena Puder (Lausanne)
- 15 **Malignant pheochromocytoma treated with sunitinib – a case report**
Stefan Fischli, Marie-Thérèse Henzi, Thilo Zander, Christoph Henzen (Luzern)
- 17 **Insulinoma in childhood – prone to be misdiagnosed**
T. Gozzi Graf, M. Brändle, Th. Clerici, D. l'Allemand (St. Gallen)
- 18 **Testis developmental genes expression in cryptorchid boys risking azoospermia**
F. Hadziselimovic, N.O. Hadziselimovic, P. Demougin, E.J. Oakeley (Liestal, Basel)
- 20 **Severe diabetic gastroparesis – successfully treated with aprepitant**
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- 21 **How to worm out an unexpected finding in a large adrenal**
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- 23 **Trends in bariatric surgery in Portugal, 2000–2005**
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- 24 **Trends in bariatric surgery in Switzerland, 1998–2008**
Gisela Marcelino, João Melich-Cerveira, Fred Paccaud, Pedro Marques-Vidal (Lisbon, Lausanne)

- 26 **Overweight and obesity are unevenly distributed among migrants in Switzerland**
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- 27 **Thyroid surgery in eastern Switzerland: who operates, how often and how radically?**
C.F. Maurus, W. Kolb, N. Kalak, Th. Clerici (St. Gallen)
- 28 **Body image and desire to change weight in the adult Portuguese population**
João Melich-Cerveira, Gisela Marcelino, Fred Paccaud, Pedro Marques-Vidal (Lisbon, Lausanne)
- 29 **Prevalence of childhood obesity in Switzerland depends on the definition applied**
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*both authors contributed equally
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- 36 **A first approach towards a food monitoring system for diabetes diet management**
Luca Scarnato, Elena Daskalaki, Peter Diem, Stavroula Mougiakakou (Bern)
- 37 **Prospective assessment of three frequently used blood glucose meters in clinical routine**
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