



16. června 2016

Náš pacient měl také lues...

KARIM 1. LF UK a ÚVN Praha

Tomáš Tyll



ÚVN

ÚSTŘEDNÍ VOJENSKÁ NEMOCNICE
Vojenská fakultní nemocnice Praha



41 let ♂

Nynější onemocnění

- 24.9. myalgie, artralgie, cervikální lymfadenomegalie
- TT > 39°C
- PL dg tonsilitis > PNC > 0 efekt, auto-vysadil pro alergii
- 2.10. myalgie, artralgie, exantém, obličeje > celé tělo
- Nález v krku a uzliny regredují
- Interní ambulance FNKV
 - Leuko 11,3, lymfo 53%, PCT 5,9, CRP 17, GMT 25, bili 141, ALT 9,37, AST 14, ALP 17, INR 1,08, krea 170, urea 33
 - Leptospiróza > KIN ÚVN

Anamnéza

41 let

OA:

- St.p. APPE před 20 lety

PSA

- MVDr., výroba vakcín

EA:

- Negativní, rizikový sex: žena ochrana před 3T, kontakt se zvířaty

AA:

- Negativní

FA:

- Sine

Abuzus:

- 15 cig./d

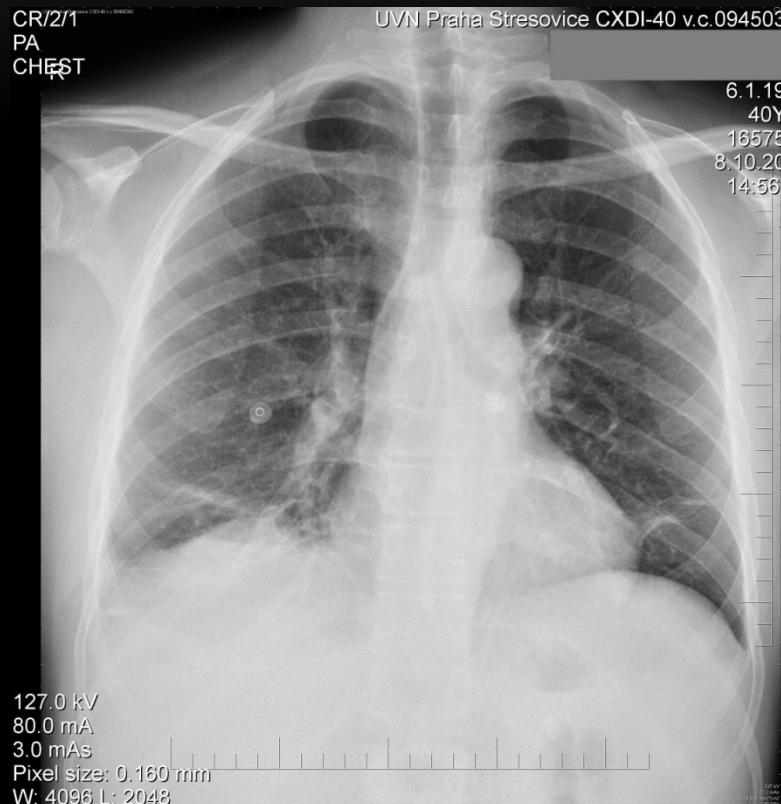
Objektivně 6.10.2016

- m = 70 kg
- v = 178 cm
- SR 109/min., TK 112/73, TT 36,6°C
- Konjuktivitis
- Bílý jazyk
- Rudé hrdlo
- Ikterus
- Moučnívka – měkké, tvrdé patro, bukální sliznice



- Subj. Únava
- Lab:
 - Leu 6,77, Seg 41%, Lymfo 45%, PLT 64, PCT 2,08, CRP12
 - krea 254, urea 19
 - Bili 138, ALT 6,55, AST 7,92, ALP 16, LDH 45, laktát 2,27
 - CH+ S U-L 54, U-E 18

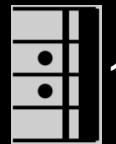
Zobrazovací metody



Závěr: Hepatomegalie.

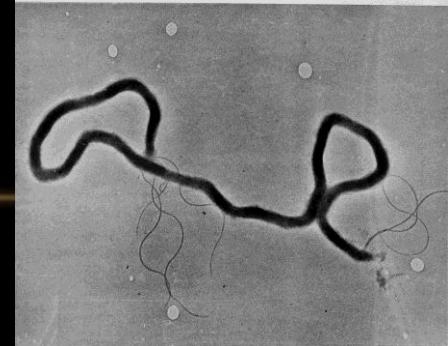
Volná tekutina v Douglassově prostoru.
Rozšířená stěna žlučníku.

Průběh hospitalizace - KIN

- Empiricky CTX = léčebně, Flukonazol
 - Symptomatická terapie
 - MSM > HIV pozitivita, Lues
 - Moč E.coli 10^4
 - 9.10. Deprese > lexaurin, diazepam p.o., apaurin i.v., tiapridal, sertivan
 - 11.10. výkřik, hyperventilace, generalizované tonicko-klonické křeče, bez²vědomí > psychiatr > hysteroidní reakce
 - 13.10. 4:00 klidně spí, 4:15 výkřik, sopor,  SpO2 > OTI > ARO
-  12.10.

Průběh hospitalizace – postupové závěry

- serologie NRL
 - Lues secundaria
 - HIV akutní
- Akalkulozní cholecystitis ch: konzervativně
- Křeče = hysterie, ?? Herpetická infekce CNS > aciclovir
- Dop:
 - ATB 14 dnů
 - Vyšetření bb imunity a virové nálože PCR HIV



- Viremie $4,8 \cdot 10^6$ kopií.ml $^{-1}$
- CD4 $^{+}$ T 270 bb. μ l $^{-1}$

| Parametr (jednotky) | hodnota | referenční meze |
|----------------------------------|---------|-----------------|
| Leukocyty ($10^9/l$) | 15,3 | 4,0 - 10,0 |
| CRP (mg/l) | 228 | 0 - 5 |
| prokalcitonin (μ g/ml) | 9,8 | 0 - 0,5 |
| ALT (μ kat/l) | 6,8 | 0,1 - 0,83 |
| AST(μ kat/l) | 9,5 | 0,1 - 0,85 |
| GGT(μ kat/l) | 30,8 | 0,17 - 1,14 |
| ALP(μ kat/l) | 25,2 | 0,67 - 2,15 |
| bilirubin celkový (μ mol/l) | 191 | 5,0 - 21,0 |
| kreatinin (μ mol/l) | 254 | 63,0 - 104,0 |
| urea (mmol/l) | 19 | 2,8 - 8,0 |
| HCO3 (mmol/l) | 31,1 | 22 - 26 |
| SBC (mmol/l) | 30,2 | 22 - 26 |

Likvor

- Akutní meningoencephalitis
 - HIV-1 RNA $1,4 \cdot 10^5$ kopií.ml $^{-1}$
 - HSV 1-2 negativní
 - Antitreponemové protilátky negativní

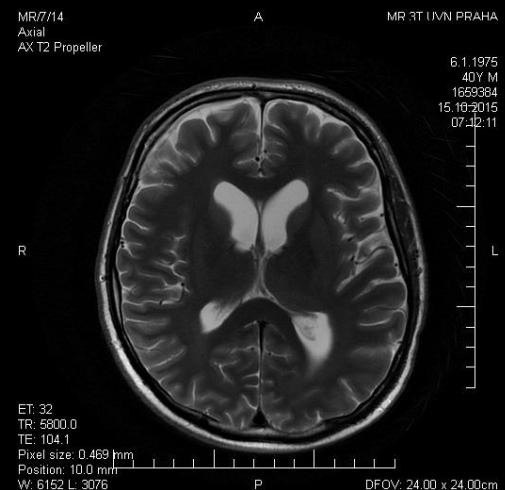
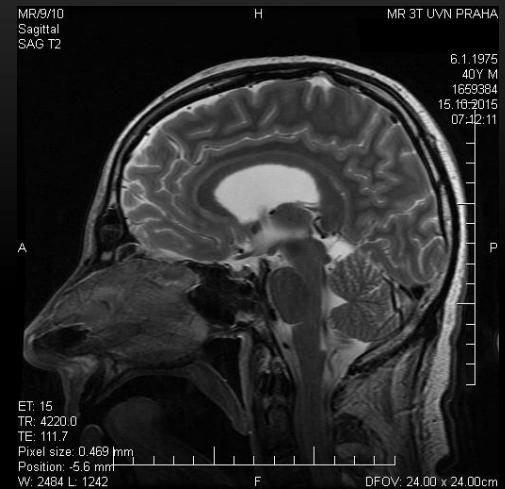
| Parametr (jednotky) | Nálezy | Refereční meze |
|--|--------|----------------|
| Bílkovina (g/l) | 1,244 | 0,2 - 0,45 |
| Albumin (g/l) | 0,7 | 0,1 - 0,3 |
| Glukóza (mmol/l) | 2,59 | 2,2 - 4,2 |
| Chloridy (mmol/l) | 126 | 110 - 132 |
| Laktát (mmol/l) | 4,23 | 1,2 - 2,1 |
| Polymorfonukleáry (buňky $\times 10^6/l$) | 0 | 0 - 4 |
| Mononukleáry (buňky $\times 10^6/l$) | 17 | 0 - 8 |
| Erytrocyty (buňky $\times 10^6/l$) | 100 | 0 - 100 |

Průběh hospitalizace - KARIM

- CTX
- Aciclovir ex
- Flukonazol
- Kombinovaná antiretrovirová terapie – cART
 - Tenofovir
 - Emtricitabin
 - Lopinavir
 - Ritonavir

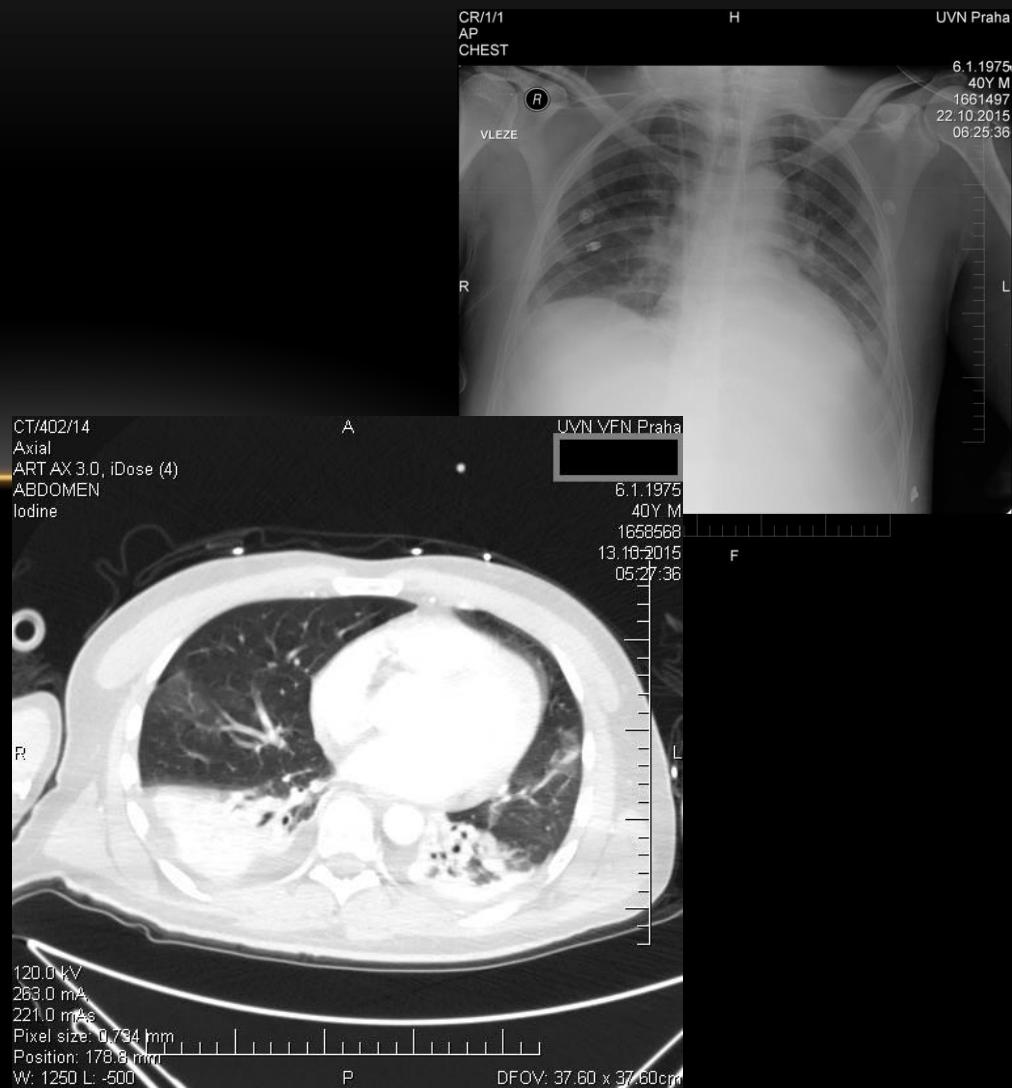
Průběh hospitalizace - KARIM

- EEG: bez epileptické aktivity
 - Levetiracetem
- MRI: bez patologického nálezu
- Klinicky bez GTCS
- Symptomatická terapie – ústup MOF
 - 21.10. weaning, extubace



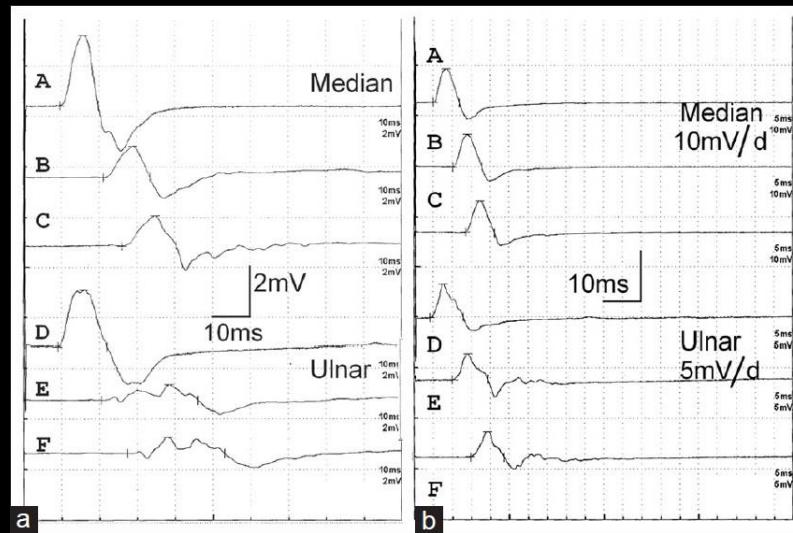
Průběh hospitalizace – KARIM komplikace

- Katéterová sepse
- Bronchopneumonie
- Flegmóna LHK
- *Staphylococcus haemolyticus*
- *Acinetobacter baumanii*
- *Candida albicans*
- Meropenem
- Vancomycin
- Flukonazol



Průběh hospitalizace - Neurologie

- 2 dny
 - HIV polyneuropatie
 - EMG: polyneuropatie, středně těžká axonálně-demyelinizační motorická neuropatie
 - Pregabalin



Průběh hospitalizace – KIN II.

- 13 dnů
 - Sekundární deprese > psychiatrist
 - Tromboflebitis v. basilica > antikoagulační léčba
 - > KIN HIV dispenzarizace

20.5.2016

cART 3 M

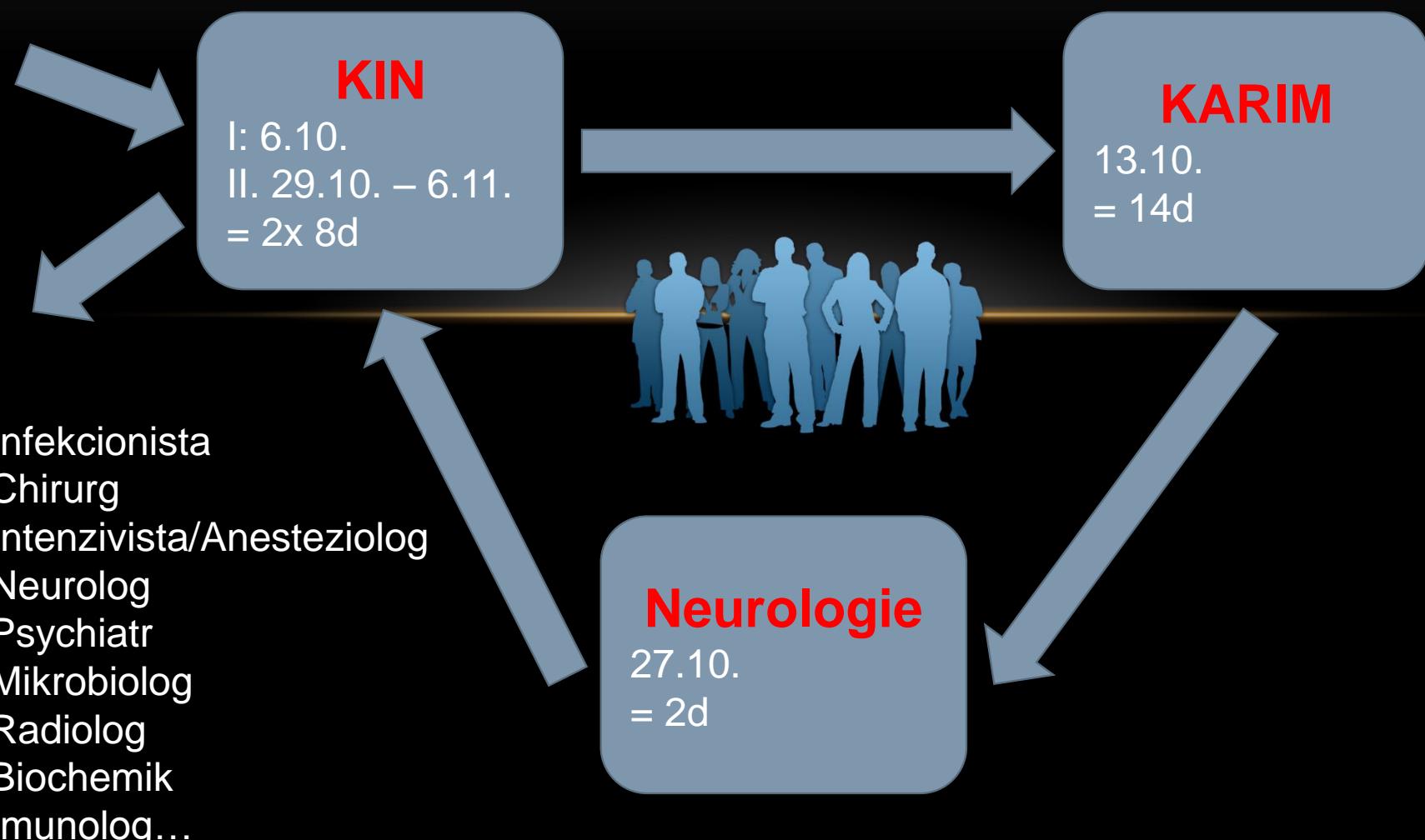
- Viremie $4,8 \cdot 10^6$ kopií.ml $^{-1}$ pokles na 61!
- CD4 $^{+}$ T 270 >320>400 bb. μ l $^{-1}$
- Compliance?
- antidepresiva

Tabulka 1.
Stádia HIV
infekce podle
Centers for
Diseases
Control -
CDC (1993)

| CD4 $^{+}$ T lymfocyty (počet/ μ l) | Asymptomatický průběh nebo * ARS | Symptomatický průběh, ale ne stadia A či C | AIDS definující nemoci |
|---|---|--|---------------------------|
| ≥ 500 / μ l | A1 | B1 | C1 |
| 499-200 / μ l | A2 | B2 | C2 |
| ≤ 200 / μ l | A3 | B3 | C3 |

*ARS – akutní retrovirový syndrom (manifestní
akutní HIV infekce)

Intenzivní medicína



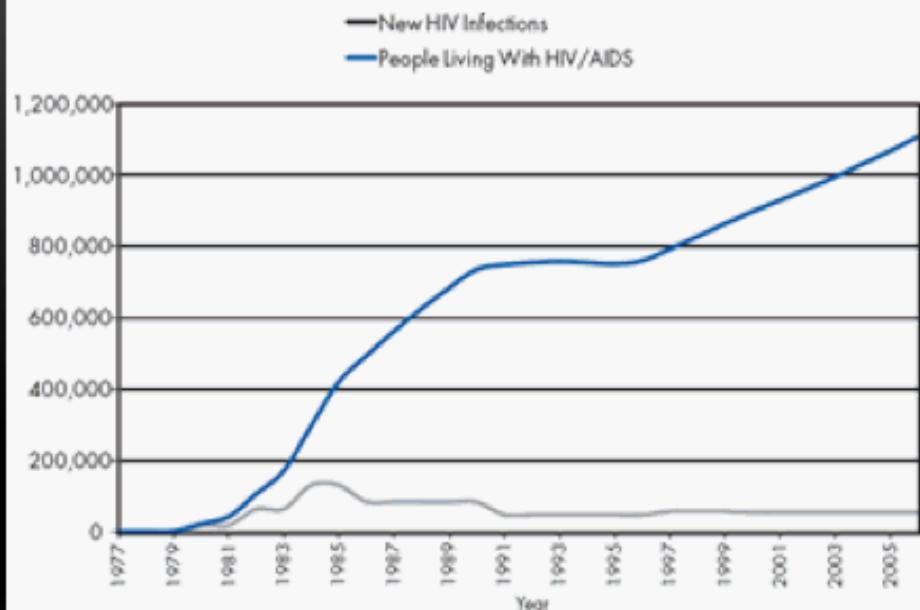
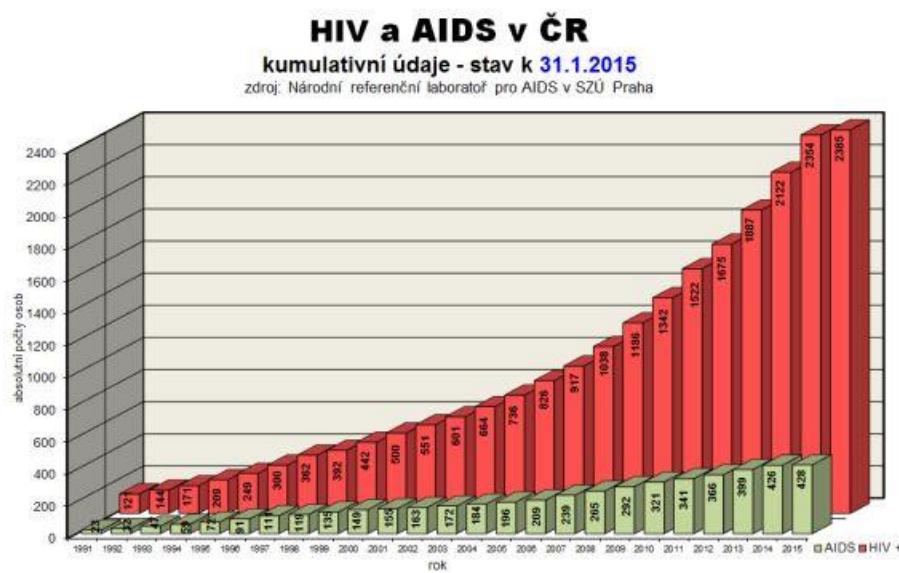
Diagnostický závěr

- Lues secundaria
 - Septický stav s MODS/MOF
 - Hepatitis
 - Exantém
 - HIV meningoencephalitis
 - Primomanifestace HIV
- + komplikace

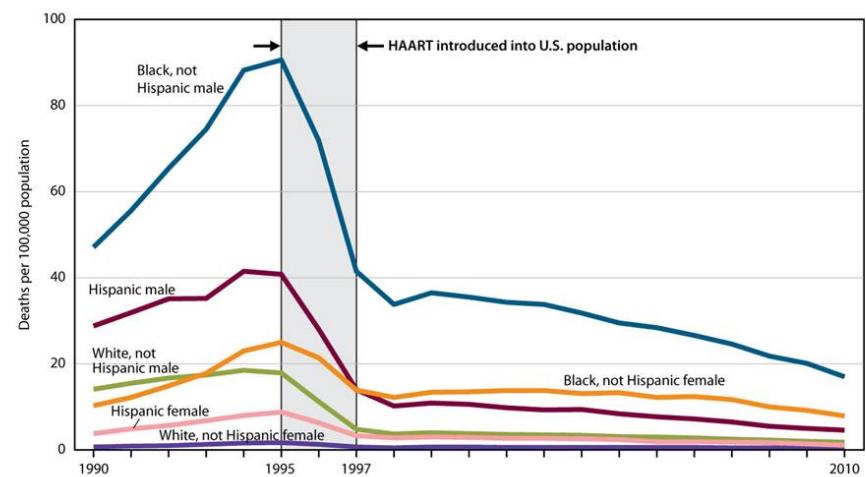
Diskuze

- Akutní retrovirový syndrom 2-4T (6-12) 50-90%
 - 8% hlavní příznak neurologický
 - Polyradikuloneuritis
 - Serosní meningoencephalitis
- Neurosyphilis (do 12M po nákaze)
- Spolupráce s ...

HIV & IM

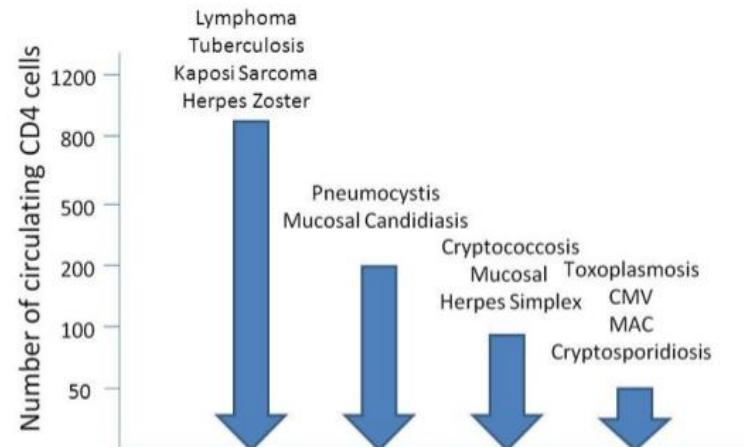


Death rates for HIV disease for all ages

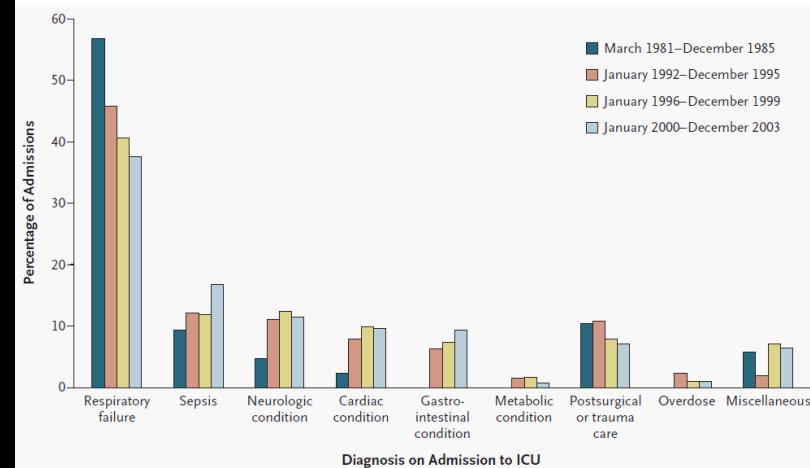


- Pneumonie
 - Bakteriální
 - PCP
 - Mykobakteria
 - Mykotické
 - Virové
- IRS
- Neoplasmata
- Akcelerovaná ateroskleróza
- ART toxicita

Typical Relationship of Clinical Manifestations to CD4 Count in HIV Infected Patients



N ENGL J MED 355;2 WWW.NEJM.ORG JULY 13, 2006



Clinical review: Respiratory failure in HIV-infected patients - a changing picture

Putul Sarkar^{1*} and Husham F Rasheed²

Critical Care 2013, **17**:228

| | |
|--|--------|
| Respiratory failure | 25-50% |
| Sepsis | 33-50% |
| Central nervous system dysfunction | 11-27% |
| Gastrointestinal problems | 6-15% |
| Cardiovascular | 8-13% |
| Immune reconstitution inflammatory syndrome ^b | 20-25% |

^aThere may be significant overlap of these conditions during acute presentation.

^bIn HIV patients with tuberculosis/cryptococcus infection on highly active antiretroviral therapy (HAART).

Characteristics and Outcomes of HIV-Infected Patients With Severe Sepsis: Continued Risk in the Post-Highly Active Antiretroviral Therapy Era*

Sushma K. Cribbs, MD, MSc^{1,2}; Caroline Tse, MD³; Joel Andrews, RN, BSN⁴; Neeta Shenvi, MS⁵; Greg S. Martin, MD, MSc²

Critical Care Medicine August 2015 • Volume 43 • Number 8

| Variable | n | OR | 95% CI | p |
|---|-------|------|-----------|----------|
| Age (per 1-yr increase) | 1,095 | 1.01 | 1.01–1.02 | 0.0007 |
| Acute Physiology and Chronic Health Evaluation II (per 1-unit increase) | 355 | 1.08 | 1.05–1.12 | < 0.0001 |
| History of pneumonia | 1,095 | 1.28 | 0.85–1.92 | 0.24 |
| History of hospital-acquired infection | 1,095 | 1.31 | 0.93–1.84 | 0.12 |
| History of sepsis | 1,095 | 0.86 | 0.45–1.63 | 0.63 |
| HIV | 1,095 | 1.58 | 1.13–2.20 | 0.007 |

| Hospital mortality, n (%) | Variable | n (%) | Median CD4 Count (IQR) | Mortality, n (%) | |
|---------------------------|--------------------------------------|----------|------------------------|------------------|---|
| | HAART characteristics | | | | |
| | On HAART at admission | 35 (22) | 121 (25–244) | 18 (51) | |
| | HAART started this admission | 23 (15) | 16 (6–111) | 9 (39) | |
| | Not on HAART | 96 (63) | 37 (6–152) | 48 (50) | |
| | CD4 count (within 3 mo of admission) | | | | |
| | CD4 < 100 | 106 (65) | | 55 (52) | |
| | CD4: 100–200 | 24 (15) | | 11 (46) | |
| | CD4 > 200 | 34 (21) | | 16 (47) | |
| | | | | 358 (38) | 82 (50) |
| | | | | | 0.007 |
| | | | | | 1095 ss, 165 HIV, CD4+ 41 22% ART, 2006-2010, retrospektiva |





Survival for Patients With HIV Admitted to the ICU Continues to Improve in the Current Era of Combination Antiretroviral Therapy*

Krista Powell, MD, MPH; J. Lucian Davis, MD, MAS; Alison M. Morris, MD, MS;
Amy Chi, MD; Matthew R. Bensley, RN; and Laurence Huang, MD, FCCP

CHEST / 135 / 1 / JANUARY, 2009

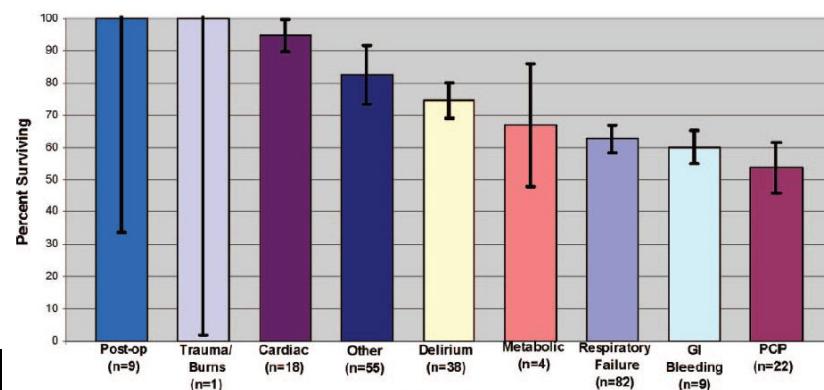


Table 1—ICU Admissions, ICU Diagnoses, ART Use, and Survival Among 311 ICU Admissions of HIV-Infected Patients, According to Study Year*

| Variables | Total | Year of Study Enrollment | | | | | | p Value† |
|---------------------|----------|--------------------------|---------|---------|---------|---------|--|----------|
| | | 2000 | 2001 | 2002 | 2003 | 2004 | | |
| ICU admissions | 311 | 50 | 52 | 75 | 66 | 68 | | |
| ICU diagnosis | | | | | | | | 0.02 |
| Respiratory failure | 131 (42) | 26 (52) | 24 (46) | 32 (43) | 26 (39) | 23 (34) | | |
| Sepsis | 62 (20) | 11 (22) | 9 (17) | 14 (19) | 11 (17) | 17 (25) | | |
| Neurologic | 51 (16) | 7 (14) | 8 (15) | 13 (17) | 16 (24) | 7 (10) | | |
| Other | 67 (22) | 6 (12) | 11 (21) | 16 (21) | 13 (20) | 21 (31) | | |
| AIDS-associated | 65 (21) | 17 (34) | 9 (17) | 12 (16) | 14 (21) | 13 (19) | | 0.17 |
| PCP diagnosis | 43 (14) | 12 (24) | 8 (15) | 8 (11) | 9 (14) | 6 (9) | | 0.03 |
| ART use | 101 (33) | 18 (37) | 16 (31) | 26 (35) | 16 (24) | 25 (37) | | 0.11 |
| Survival | 215 (69) | 29 (58) | 31 (60) | 53 (71) | 51 (77) | 51 (75) | | 0.001 |

*Values are given as No. (%), unless otherwise indicated.

†Values correspond to the F-statistic for linear regression. A p value < 0.05 suggests that a linear trend is present.

Characteristics and Outcome of Patients With AIDS in Dutch ICUs Between 1997 and 2014*

Michaëla A. Huson, MD¹; Ferishta Bakhshi-Raiez, PhD^{2,3}; Martin P. Grobusch, MD, PhD⁴;
Evert de Jonge, MD, PhD^{3,5}; Nicolette F. de Keizer, PhD^{2,3}; Tom van der Poll, MD, PhD^{1,4}

Critical Care Medicine 2016; 44:291–299

| | AIDS (n = 1,127) | No AIDS (n = 4,479) | p |
|--|------------------|---------------------|----------|
| Demographics | | | |
| Age (mean, SD) | 48.5 (13.6) | 48.5 (13.4) | 0.75 |
| Sex, male (n, %) | 864 (76.7) | 3,443 (76.9) | 0.88 |
| Admission type (n, %) ^{a,b} | | | |
| Medical | 866 (77.2) | 3,452 (77.4) | 1.0 |
| Emergency surgery | 102 (9.1) | 396 (8.9) | |
| Planned surgery | 153 (13.6) | 611 (13.7) | |
| Main Acute Physiology and Chronic Health Evaluation II reasons for admission (n, %) ^c | | | |
| Respiratory infection (nonsurgical) | 318 (28.6) | 339 (7.7) | < 0.0001 |
| Sepsis (surgical and nonsurgical) | 188 (16.9) | 332 (7.5) | |
| Neurologic (nonsurgical) | 49 (4.4) | 173 (3.9) | |
| Chronic cardiovascular disease (surgical) | 40 (3.6) | 209 (4.7) | |
| Respiratory (nonsurgical) | 36 (3.2) | 163 (3.7) | |
| Drugs overdose (nonsurgical) | 32 (2.9) | 234 (5.3) | |
| Gastrointestinal (nonsurgical) | 26 (2.3) | 225 (5.1) | |
| After cardiac arrest (surgical and nonsurgical) | 25 (2.2) | 262 (5.9) | |
| Heart valve surgery (surgical) | 23 (2.1) | 141 (3.2) | |

^aData were available for 1,122 AIDS cases and 4,460 controls. Percentages were calculated using these figures as denominators.

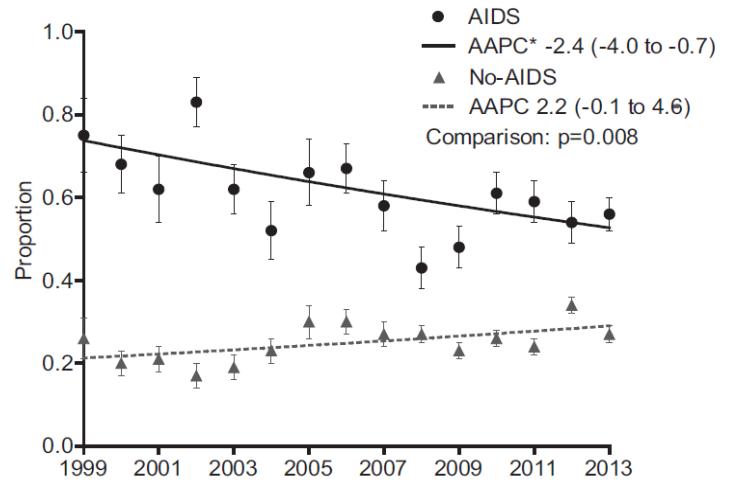
^bAn additional 0.1% of admissions in both AIDS and non-AIDS patients were deceased prior to admission. This category includes mostly organ transplant donors.

^cData were available for 1,113 AIDS cases and 4,410 controls. Percentages were calculated using these figures as denominators.

Boldface value denotes the significance threshold $p < 0.05$.

A

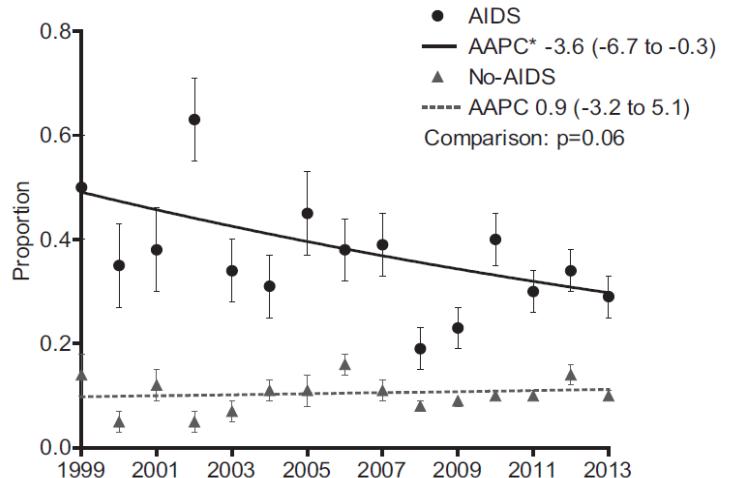
Infections



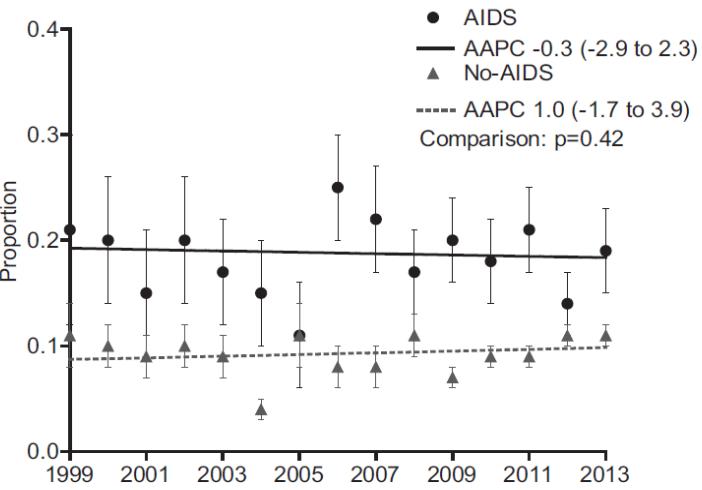
Přijetí PIM

B

Respiratory tract infections

**C**

Sepsis



Mortalita

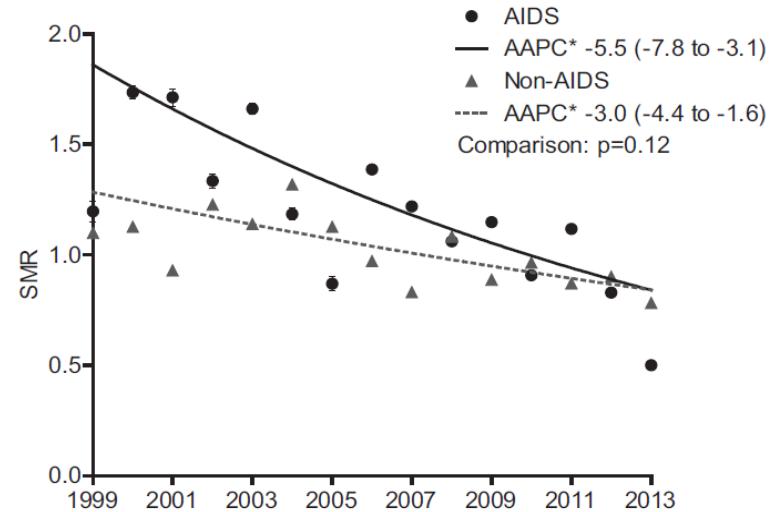
28,2 vs. 17,8%, p<0,0001

4479 c + 1127 HIV+

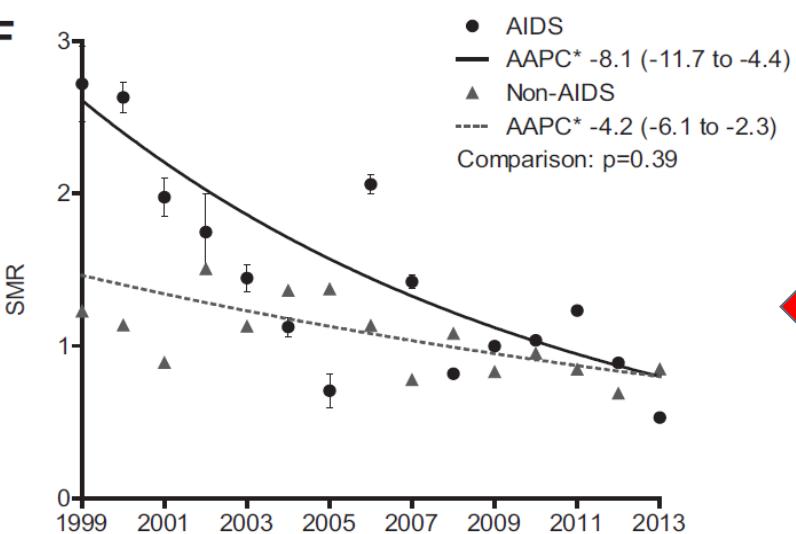
All diagnoses

D

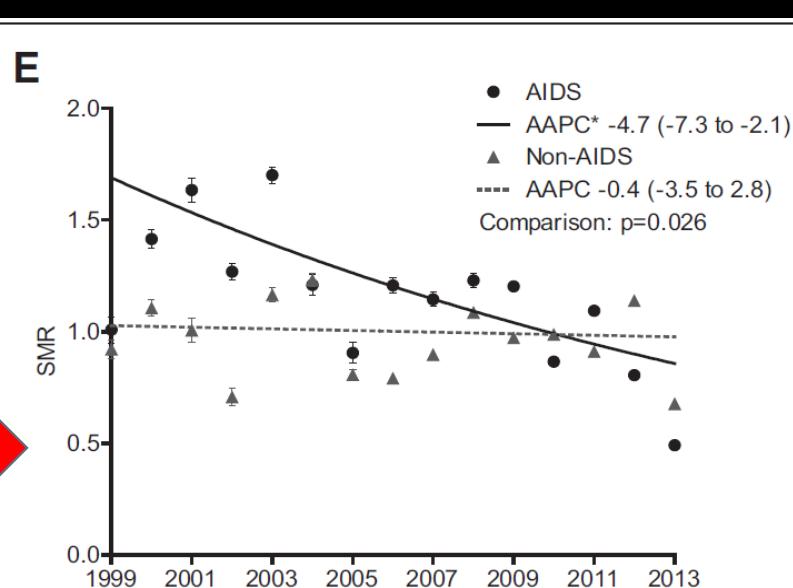
In-hospital SMR



F



E



Infection diagnoses



Faktory ovlivňující přežití

- Věk
- APACHE
- CD4+
- Albumin
- UPV
- Viremie
- ART??



| Variable | OR (95% CI) | P value |
|----------------------------------|-------------------|---------|
| Age (per 10-year increase) | 0.74 (0.53, 1.02) | 0.068 |
| APACHE II (per 10-unit increase) | 0.55 (0.35, 0.87) | 0.011 |
| Albumin (per increase of 1 g/dL) | 1.05 (1.00, 1.09) | 0.041 |
| HAART* | 2.24 (1.01, 4.94) | 0.047 |
| Need for mechanical ventilation | 0.14 (0.06, 0.36) | <0.001 |

| | First cohort 1999–2005, | Second cohort 2006–2009, | Combined 1999–2009, |
|-----------------------|----------------------------|-----------------------------|------------------------|
| Survival | | | |
| To ICU discharge | 23 (74) | 6 (55) | 29 (69) |
| To hospital discharge | 18 (58) | 6 (55) | 24 (57) |

1999-2009
192pts

Děkuji za pozornost.

