Case presentation

Genitourinary Aspergillosis is rare but has a high risk of death without surgical debridement. We report here successful treatment of a case of renal aspergilloma in an AIDS patient with nephrectomy and multi-antifungal therapy (MAT). We know of only 6 other cases in AIDS patients reported in the medical literature. Other involvement in our patient included an aspergillus prostatic abscess. We found 6 other cases reported involving the prostate, only one had HIV.

MM was a 33 yo gentleman with par-resistant HIV, cd4<10, who presented in November 2003 with fever, dysuria for almost 2 weeks with persistent pyuria despite 5 days of antibiotics.

Imaging showed a large retroperitoneal abscess. CT-guided biopsy showed fungal elements. MAT with itraconazole, amphotericin and caspofungin(IAc) led to worsening abscess. Nephrectomy was difficult; photographs of gross pathology are impressive.

Salvage ARV therapy with enfuvirtide led to HIV PCR<400 within 4 weeks. Voriconazole was tried but resulted in undetectable levels because of ritonavir interaction. After 6 months of MAT, amphotericin and fluconazole were stopped. The abscess recurred within one month. IAC was restarted, and along with drainage, led to resolution of the retroperitoneal abscess.

Six months later, amphotericin was stopped but itraconazole and caspofungin were continued. Again with one month of using <3 agents, re-imaging showed the abscess recurred, this time with multiple loculations. The largest location was drained. The patient declined multiple drains and IAC, & the loculations increased in number and size, with epidual extension and scalloped lesions of vertebrae T12-L1.

He died 23 months after nephrectomy from prolonged neutropenia and difficult to treat CMV encephalitis. He also had progressing & untreatable invasive squamous cell anal carcinoma. CD4 count never rose above 20, despite repeated HIV PCR's <400.

This case represents successful treatment of renal aspergilloma with nephrectomy & MAT, with meaningful quality of life until the last few months reported by the patient. Imaging throughout his course dramatically documents resolution and recurrence of the abscess.

Conclusions

GU Aspergillus rare, ours is 2nd described case in HIV of renal & prostate. Pulmonary most likely route of initial aspergillus infection. Despite fully suppressed HIV for 23 months (HIV PCR<400), patient never immune reconstituted.

Because of CD4<50 for years, he suffered another fatal OI—CMV encephalitis.

CMV encephalitis unable to treat biofilm renal insuf & neutropenia, precluding use of either foscarnet or gancyclovir.

MAT (3 agents) led to two abscess-free periods of 6 mos each: w/ nephrectomy & MAT, the 1st time, w/ drainage & MAT, the 2nd time.

Abscess recurred both times within one month of using <3 antifungal agents. Inadequate tests & little evidence exist to guide MAT in this setting.

Serum galactomannan Ag test not available at time of initial diagnosis. Surgery was necessary part of treatment in this patient.

Left nephrectomy

Operative report:


Pathology report:

Kidney: 14.3 x 11 x 8.1cm, 626 grams

Mass: 9.5 x 7.6 cm, diffuse area yellow discoloration superior pole

2 fragments of rib w/ no evidence of fungus

Probable initial route of infection→ pulmonary

Probable initial route of infection→ pulmonary

Large Left renal fluid collection

Prostate fluid collection; drained intraoperatively, stained positive fungal elements.

Renal Fluid collection communicates w/ retroperitoneal wall & ureter.

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Literature Review

> Renal Aspergillus

> 20 cases in literature: 6 HIV (7 now)

Kapinic 1991 Chest

2000 AIDS pts between 1985-89, 7 inv aspergillus, 6 IPA & 1 renal.

Kummerle 1998 Int Urol

33 yo AIDS, isolated renal abscess, cured w/ ’quintessential mycotic measures’; HAART & normalization of CD4. No surgery.

Lopez 1999 Acute Unit Exp


Blanco 2001 Acute Unit Exp 25(3)396-9

1 case report renal abscess Aspergillus niger

Mesquida 2002 XIV Int AIDS Conf


Manfredi 1998 Mycoses

9 cases of visceral Aspergillosis since 1984 at single institution, Bologna, Italy.

None isolated renal. One case w/ renal involvement, also involved lungs.

Fletcher & McAninch, J Urol, 1981

Prostatic Aspergillus

6 cases reported (7 now): 4 w/ isolated prostate

Only one other with HIV.

Hood 1998

Single case w/AIDS-prostate + epididymo-orchitis