

**Conclusions:** The clinical outcome of RSV infections in lung transplant patients seems to be dependent on the degree of immunosuppression. Reduction of immunosuppression might be sufficient in selected cases and aggressive anti-RSV therapies could be restricted to patients under intense immunosuppression.

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### Three Cases of Septic Gas Gangrene Post-Liver Transplantation Successfully Treated with Replantation

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**Background:** Gas gangrene is a rare and devastating infectious process that most often occurs following penetrating trauma or post-operatively. Gas gangrene of a transplanted liver has been reported rarely. We report three cases of gas gangrene following orthotopic liver transplantation. Blood cultures were positive for *Clostridium clostridioforme* in one case. In two other cases liver tissue from explanted specimens were positive for *Enterobacter cloacae*. Ultrasound demonstrated hepatic artery thrombosis and computed tomography imaging revealed diffuse necrosis with gas formation in each case. All three patients were successfully treated with a combination of antibiotics and emergent retransplantation. This is the largest series of post-transplant occurrences of septic gas gangrene. In the adult literature, a total of eight cases with two successful re-transplants have been previously reported. Hepatic artery thrombosis was a common preceding event to these infections. Early diagnosis and aggressive combined medical and surgical treatment including re-transplantation are essential to successful treatment of these rare and usually fatal infections.

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### Characteristics of Invasive *Candida* (IC) Infections on Solid Organ Transplant (SOT) Recipients

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**Background & Objectives:** The rate of IC due to non-albicans *Candida* (NAC) and associated azole-resistance has been rising. IC is a serious complication of SOT and this study assesses the epidemiology of IC in our SOT population, fluconazole (FLU) resistance and outcomes.

**Methods:** A retrospective review was performed of abdominal SOT recipients with IC between

2001 and 2004. Cases were identified by cross-matching microbiology lab data of non-urinary, non-respiratory *Candida* isolates with our SOT database. Demographic, clinical and lab data were recorded; IRB approval was obtained.

**Results:** 539 SOT were performed: 337 renal transplants (RT), 167 liver transplants (LT), 17 kidney-pancreas transplants (KPT), 9 each small bowel (SBT) and pancreas transplants (PT). 16 (3.0%) pts developed 17 episodes of IC within 6 months (mo) of SOT (Table 1). The highest rates of IC were among LT and SBT. 9/17 episodes of IC (53%) were intraabdominal (IA), 5 (29%) were bloodstream (BS), 2 (12%) were both IA+BS, and 1 (6%) was an abdominal wall abscess. 13/17 (77%) episodes completely responded (CR) to antifungal (AF) therapy and 4/17 (24%) were failures (4/4 patients expired).

Table 1. IC within 6 mo of SOT.

Organ	2001	2002	2003	2004	Overall
RT	0/65	3 <sup>a</sup> /70 (4.3%)	0/94	1/108 (0.9%)	4 <sup>a</sup> /337 (1.2%)
LT	2/24 (8.3%)	2 <sup>a</sup> /41 (4.9%)	4/51 (7.8%)	4/51 (7.8%)	12 <sup>a</sup> /167 (7.2%)
PT	NA	0/4	0/2	0/3	0/9
KPT	0/5	0/2	0/5	0/5	0/17
SBT	NA	1/1 (100%)	0/3	0/5	1/9 (11.1%)
Total	2/94 (2.1%)	5/118 (4.2%)	4/155 (2.6%)	5/172 (2.9%)	16/539 (3.0%)
Mean time to IC from SOT (d)	34 (7–61)	45 (5–125)	72.8 (16–173)	15.8 (3–33)	15.8 (3–33)

<sup>a</sup>1 combined LT/RT, counted twice.

13 additional pts had late-onset (>6 mo post-SOT) IC during the study period: 6/13 (46%) RT, 3 (23%) combined LT/RT, 2 (15%) LT, and 1 each (8%) SBT and KPT. Sites included 10 (77%) BS and 3 (23%) IA and the mean time to IC after SOT was 45 mo (range 7–115). 10/13 (77%) had CR and 1 each (8%) had: repeat cultures negative without AF therapy, death prior to AF therapy, and death on therapy despite CR prior to death. For all 30 episodes, NAC and FLU resistance rates varied by year (Table 2). NAC rates were as follows: 23% *C. glabrata*, 16% *C. parapsilosis*, 13% *C. tropicalis*, and 6% *C. krusei*.

Table 2. Incidence of NAC and FLU resistance.

Year	2001	2002	2003	2004
NAC	3/5 (60%)	7/9 (78%)	6/9 (67%)	2/7 (29%)
FLU resistance	1/2 (50%)	2/9 (22%)	0/7	0/6

**Conclusions:** Most early IC were in LT pts and most late IC were in RT pts. The incidence of IC was stable with a high rate of NAC. Fortunately, FLU resistance was rare.