

## **1. Materials and Methods**

### **1.1 Diagnosis criteria for CUC**

The diagnosis criteria for CUC were: 1) the presence of clinical symptoms of neonatal infection: apnoea, or tachypnoea with retractions, nasal flaring, grunting, or tachycardia, or temperature instability; 2) positive result of *C. utilis* in two blood cultures from different sites at the same time by using VITEK2 COMPACT (BioMérieux, China).

## 1 2. Table S1

2 **Table S1. Clinical and laboratory examination of 13 cases of CUC**

Case No.	Neutrophilic granulocyte count (10 <sup>9</sup> /L)	Platelet count (10 <sup>9</sup> /L)	CRP (mg/L)	(1,3)-beta-D-g lucan,G test (pg/mL)	CSF cell counts (×10 <sup>6</sup> /L)	CSF protein level(g/L)	CSF Glucose level (mmol/L)	CSF culture	Routine urine test	ROP screen
1	5.9	223	24	10	4	1.16	2.91	Neg	N	Neg
2	3.3	92	6	ND	11	1.42	2.35	Neg	N	Zone 2,stage 2, plus(-)
3	.8	34	34	10	14	0.79	1.1	Neg	N	Neg
4	1.0	27	4	618	11	0.65	2.88	Neg	N	Neg
5	.8	30	17	ND	ND	ND	ND	ND	N	Zone 2,stage 3, plus(+)
6	.8	79	6	1098	17	1.08	1.61	Neg	N	Neg
7	.8	26	9	ND	8	1.56	1.76	Neg	N	Neg
8	6.5	50	17	ND	39	2.82	0.43	Neg	N	Neg
9	.8	81	1	10	ND	ND	ND	ND	N	Neg
10	14	126	16	ND	ND	ND	ND	ND	N	Neg
11	.1	28	6	ND	15	1.51	2.95	Neg	N	Neg
12	1.9	60	8	1000	ND	ND	ND	ND	N	Neg
13	1.0	75	4	10	29	1.41	1.9	Neg	N	Zone 1,stage 2, plus(+)

3 ND: Not done; N: normal; Neg: negative; Thrombocytopenia was defined as the platelet count  $<100 \times 10^9/L$  in complete blood count (CBC); Granulocytopenia was defined as granulocyte count  
4  $<1 \times 10^9/L$  in CBC; and elevated C reactive protein (CRP) was defined as  $>8\text{mg/dL}$ .

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28 Table S2. Differences in clinical characteristics between *Candida albicans* and *Candida utilis* infection

	<i>Candida albicans</i> [3]	<i>Candida utilis</i> candidemia
<b>Route of infection</b>	Skin, Gastrointestinal tract, Vertical transmission, Blood	Blood,[1,2]Hospital acquired infection,[2]
<b>Infection site</b>	CNS, Heart, Kidney, Eye, Liver Spleen	Skin, Blood[1]
<b>Clinical presentation</b>	Late-onset sepsis, Lethargy, Anpnoea, Cardiorespiratory failure	Poor response, SaO2 instability, Anpnoea, Respiratory Distress, Poor feeding,[1] Hypothermic,[1] Convulsions,[1]
<b>Laboratory examination</b>	Leukocytosis or leukopenia, Thrombocytopenia, Hyperglycaemia, CRP↑、 PCT↑, (1,3)-β-d-glucan (BDG)↑, Blood culture positive,	Thrombocytopenia,[1] Granulocytopenia, CRP↑, (1,3)-β-d-glucan (BDG)↑, Blood culture positive,[1,2]

**Risk factors**

Lower gestational age,	Lower gestational age,[1,2]
Lower birth weight,	Invasive mechanical ventilation,[2]
Vaginal delivery,	Central venous catheterization,[1,2]
Hospitalization for >7 days,	Surgical intervention (e.g. abdominal surgery),[2]
Disseminated intravascular coagulopathy,	Prophylactic antibiotics given[2]
Thrombocytopenia,	
Central venous catheterization,	
Broad-spectrum antibiotics,	
Invasive mechanical ventilation,	
Antacids (including H2 blockers),	
Systemic steroids,	
Candida colonization,	
Parenteral nutrition,	
Intravenous lipid emulsion,	
Groin catheters	

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34 **Reference**

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