

## 7 Anhang

### 7.1 Klinisch-diagnostische Daten

**Tabelle 34: Inzidenz der pulmonalen Infektionen durch *M. tuberculosis* und NTM in Berlin**

Jahr	Einwohner in Tsd.*	Pulmonale Tbc.*			Anzahl TBC/ 10.000 Einw.	<i>M. tb.</i> in Hh	NTM in Hh <sup>+</sup>	Anzahl NTM/ 10.000 Einw.*
		gesamt	mit bakt. Nachweis	ohne bakt. Nachweis				
1986	1879,2	791	364	427	4,2	119 <sup>1</sup>	4 <sup>1</sup>	-
1987	2012,7	682	326	356	3,4	213	4	0,020
1988	2068,3	661	308	353	3,2	228	2	0,010
1989	2130,5	694	335	359	3,3	204	3	0,014
1990	2157,9	664	333	331	3,1	250	4	0,019
1991	2164,9	627	358	269	2,9	234	2	0,009
1992	2171,7	559	348	211	2,6	185	6	0,028
1993	2176,4	539	353	186	2,5	192	6	0,028
1994	2170,9	489	302	187	2,3	202	5	0,023
1995	2170,3	426	278	148	2,0	283	3	0,014
1996	2162,0	485	248	137	2,2	173	8	0,037
1997	2139,7	338	228	110	1,6	186	4	0,019
1998	2124,8	297	231	66	1,4	195	5	0,024

\* in Westberlin

<sup>+</sup> nur Westberliner Patienten, eigene Berechnungen

<sup>1</sup> für den Zeitraum 8-12/1986

Quelle: Statistische Jahrbücher Berlin

**Anmerkung:**

im Statistischen Jahrbuch ist die Abnahme der Inzidenz der Tuberkulose auch für Gesamtberlin dokumentiert.

Tabelle 35: Prädisponierende Faktoren bei den erwachsenen Patienten

Spezies	<i>M. avium complex</i>	<i>M. xenopi</i>	<i>M. kansasii</i> *	<i>M. szulgai</i>	<i>M. malmoense</i>	<i>M. chelonae</i>	<i>M. simiae</i>	<i>M. gordonae</i>	<i>M. celatum</i>	<i>M. shimoidei</i>	<i>M. heckeshorn.</i>
Anzahl (m/w)	18 (11/7)	15 (12/3)	11 (8/3)	4 (4/0)	4 (4/0)	2 (1/1)	2 (0/2)	0/1	0/1	1/0	0/1
COLD	8 (5/3)	10 (8/2)	3 (2/1)	2 (2/0)	4	0/1	1	1	1	1	0
Z. n. Tbc	8 (5/3)	3 (2/1)	2 (1/1)	2 (2/0)	1	0	0	1	0	0	0
Emphysem	7 (7/0)	7 (5/2)	3 (2/1)	3 (3/0)	2	0	2	0	1	1	0
Bronchiectasien	5 (1/4)	0	2 (2/0)	0	0	0/1	0	0	0	0	0
M. Bechterew	0	1/0	1/0	0	1/0	0	0	0	0	0	0
chr. interst. Lungenerkrankung	0/1	0	1/0	0	0	0	0	0	0	0	0
Maligne Erkrankungen	0/1	2(2/0)	1/0	0	0	0	0	0	0	0	0
Bronchial-Ca	0/1	1/0	0	0	0	0	0	0	0	0	0
Nikotinabusus	8 (7/1)	15 (12/3)	7 (6/1)	4	4	0	0	0	1	1	0
Alkoholabusus	3 (3/0)	6 (5/1)	3 (3/0)	1	2	0	1	0	0	0	0
Diabetes mellitus	0/1	0	0	0	0	0	0	0	0	0	0
Alter >= 70J	4 (1/3)	1/0	1/0	0	1/0	2 (1/1)	0/1	0/1	0	0	0
andere	0	0/1 <sup>1</sup>	1/0	1 <sup>2</sup>	0	2 (1/1) <sup>2/3</sup>	1 <sup>4</sup>	0	0	0	0

\* Die prädisponierenden Erkrankungen eines Patienten konnten nicht erhoben werden.

1 Multiple Sklerose

2 Marasmus

3 Refluxkrankheit bei Hiatushernie

4 37kg, chron. Pankreatitis

**Anmerkung:** Die prädisponierenden Erkrankungen der Kinder sind im Abschnitt 4.2.5 beschrieben.

**Tabelle 36: Klinische Symptome der erwachsenen Patienten**

(siehe Abschnitt 4.2.3)

Spezies	<i>M. avium</i> complex (18)	<i>M.</i> <i>xenopi</i> (15)	<i>M.</i> <i>kansasii</i> (11)*	<i>M.</i> <i>szulgai</i> (4)	<i>M.</i> <i>malmoense</i> (4)	<i>M.</i> <i>chelonae</i> (2)	<i>M.</i> <i>simiae</i> (2)	<i>M.</i> <i>celatum</i> (1)	<i>M.</i> <i>gordonae</i> (1)	<i>M.</i> <i>shimoidei</i> (1)	<i>M.</i> <i>heckesh.</i> (1)
Husten	14 <sup>1,2</sup>	10	7	4 <sup>3</sup>	4	2	1	1	1	-	1
Auswurf	11 <sup>1,2</sup>	7	7	4 <sup>3</sup>	3	2	1	1	-	-	1
Hämoptysen	4	1	1	1	-	-	-	-	-	-	-
Gewichtsverlust	7	6	2	2	3	-	1	1	-	-	1
Fieber	3 <sup>1,2</sup>	3	1	1 <sup>3</sup>	-	1	-	-	-	-	-
subfebril	2	2	1	1	2	-	-	-	-	-	-
Reduzierter AZ	3	1	2	1	-	-	-	-	1	-	-
Dyspnoe	2	-	-	-	-	1 <sup>4</sup>	-	-	1	-	-
Thoraxschmerz	1	2	2	-	-	-	-	-	-	-	-

\* von einem Patienten (SL) waren keine Daten zu erheben

1 Streptokokken-Infektion

2 Haemophilus influenzae-Infektion

3 Klebsiellen-Pneumonie

4 dekompensierte Herzinsuffizienz

**Anmerkung:** Die Symptome der Kinder sind im Abschnitt 4.2.5 beschrieben

**Tabelle 37: Röntgenbefunde der erwachsenen Patienten**

(siehe Abschnitt 3.2.4)

Spezies	MAC	M. xen.	M. kans.	M. szul.	M. malm.	M. chel.	M. celat.	M. shim.	M. sim.	M. gord.	M. heck.*	gesamt
<b>Infiltrate</b>												
re OL	3	2	2	1	-	-	-	1	1	-	-	10
li OL	1	1	-	2	-	-	-	-	-	-	-	4
bd. OL	1	-	-	-	-	-	-	-	-	-	-	1
ML	1	-	1	-	-	-	-	-	-	1	-	3
re UL	-	-	-	-	-	-	-	-	-	-	-	0
li UL	1	-	-	-	-	-	-	-	-	-	-	1
<b>gesamt</b>	7	3	3	3	0	0	0	1	1	1	0	19
<b>Kavernen</b>												
re OL	4	9	4	1	4	-	-	-	1	-	-	23
li OL	2	2	4	-	-	-	1	-	-	-	-	9
bd. OL	1	-	-	-	-	-	-	-	-	-	1	2
ML	-	1	-	-	-	1	-	-	-	-	-	2
re UL	1	-	-	-	-	-	-	-	-	-	-	1
li UL	-	-	-	-	-	-	-	-	-	-	-	0
<b>gesamt</b>	8	12	8	1	4	1	1	0	1	0	1	37
<b>disseminiert</b>												
nodulär	2	-	-	-	-	1	-	-	-	-	-	3
klein- kavernös	1	-	-	-	-	-	-	-	-	-	-	1
<b>gesamt</b>	3					1						4

\* *Mycobacterium heckeshornense***Anmerkung:** Die Röntgen-Befunde der Kinder sind im Kapitel 4.2.5 beschrieben.

## 7.2 Identifizierung

Tabelle 38: Identifizierung: *M. avium* complex

Patienten:	Def.	AB	GB	DB	PB	SC	EC	RD	JG	MH	GK	HL	AM	HM	KM	JN	TS	KS	ES	JS	SS
Morphologie <sup>1</sup>	<b>Sf/R</b>	- <sup>3</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	S	-	-	-	-	-
Temperaturoptimum °C	<b>30-36</b>	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja	ja
Pigment <sup>2</sup>	<b>N</b>	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Wachstumsgeschw.	<b>&gt;10 d</b>	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
Niacin	<b>neg</b>	neg	neg	neg	neg	neg	(pos)	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Nitratreduktion	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Pyrazinamidase 0,1%	<b>pos</b>	neg	(pos)	pos	(pos)	(pos)	pos	pos	(pos)	(pos)	pos	pos	pos	(pos)	pos	pos	(pos)	neg	pos	pos	pos
BSH	<b>R</b>	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Tween-Hydrolyse	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Urease	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Arylsulfatase	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
NaCl 5%	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	-	neg	neg	neg	neg
Katalase semiquant.	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Katalase 68°C	<b>pos</b>	pos	pos	pos	(pos)	pos	pos	pos	(pos)	(pos)	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos
Mc Concay	<b>neg</b>	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	-	-	neg	neg	neg
Telluritred.	<b>pos</b>	(pos)	neg	neg	pos	neg	(pos)	(pos)	pos	pos	pos	pos	pos	neg	(pos)	pos	pos	neg	pos	neg	neg
Eisenaufnahme	<b>neg</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>PCR</b>	<i>M.av./M.ic*</i>	-	<i>M.av.</i>	-	<i>M.av.</i>	-	-	<i>M.av.</i>	<i>M.av.</i>	-	-	-	-	-	-	-	<i>M.av.</i>	-	-	-	-
<b>Sequenzierung</b>	<i>M.av./M.ic*</i>	<i>M.av.</i>	<i>M.av.</i>	<i>M.ic.*</i>	<i>M.av.</i>	-	-	-	<i>M.av.</i>	<i>M.av.</i>	-	<i>M.av.</i>	-	-	-	<i>M.ic.*</i>	-	-	<i>M.ic.*</i>	-	-
<b>Spacer</b>	<i>M.av./M.ic*</i>	-	<i>M.av.</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* *M. intracellulare*

1 Kolonienmorphologie: R: rau, S: glatt, SR: rau-glatt, f: filamentöse Ausläufer

2 Pigment: P: photochromogen, S: skotochromogen, N: nonchromogen

3 -: nicht untersucht

Tabelle 39: Identifizierung: *M. xenopi*

Patienten:	Def.	RB	EB	CE	HG	MH	HK	GM	KP	US	RS	MS	JS	WS	WSo	WW
Mikroskopie	gelb	- <sup>4</sup>	typ.	-	dysgon	-	typ.	eugon	-	typ.	-	typ.	typ.	-	typ.	atyp.
Morphologie <sup>1</sup>	Sf	-	-	-	-	-	R	-	-	-	-	-	-	-	-	S/R
Temperaturoptimum °C	42	37-45	37-45	37-45	45	37-45	45	37-45	37	37-45	45	37-45	37-45	37-45	45	37-45
Pigment <sup>2</sup>	S	mF/oF	S	S	S	S	S	S	-	S	S	S	S	S	S	S
Wachstumsgeschw. (Tage)	>10	14-21	21	21	21	21	21	21	21	21	14-21	21	21	14-21	14-21	21
Niacin	neg	neg	neg	neg	neg	neg	neg	neg	-	neg	neg	neg	neg	neg	neg	neg
Nitratreduktion	neg	neg	neg	neg	neg	neg	neg	neg	-	neg	neg	neg	neg	neg	neg	neg
Pyrazinamidase 0,1%	d <sup>3</sup>	(pos)	pos	(pos)	neg	pos	neg	(pos)	-	pos	pos	pos	pos	neg	(pos)	neg
Brenzschleimsäurehydrazid	neg	R	R	R	R	-	R	R	R	R	R	R	R	R	R	R
Tween.-Hydrolyse	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Urease	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Arylsulfatase	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos
Toleranz 5% NaCl	neg	neg	neg	neg	neg	neg	neg	neg	-	neg	neg	neg	neg	neg	neg	-
semiquantitative Katalase	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	(+)	neg	neg	neg	neg
Katalase 68°C	pos	pos	pos	pos	pos	pos	pos	(pos)	pos	pos	pos	pos	pos	pos	pos	(pos)
Mc Concay	neg	neg	neg	neg	neg	neg	neg	neg	-	-	neg	neg	neg	neg	neg	-
Telluritreduktion	d	neg	(+)/-	neg	neg	neg	neg	neg	neg	pos	neg	neg	neg	neg	pos	(pos)
Eisenaufnahme	neg	-	neg	-	-	-	-	-	-	-	-	-	-	-	-	-
PCR	<i>M. xen.</i>	-	-	-	-	-	-	-	-	<i>M. xen.</i>	-	-	-	-	-	-
Sequenzierg/Spacer	<i>M. xen.</i>	-	-	<i>M. xen.</i>	-	-	-	-	<i>M. xen.</i>	-	<i>M. xen.</i>	-	-	-	<i>M. xen.</i>	-

1 Kolonienmorphologie R: rauh, S: glatt, SR: rauh-glatt, f: filamentöse Ausläufer

2 Pigment P: photochromogen, S: skotochromogen, N: nonchromogen

3 d: wechselnder Reaktionsausfall

4 - : nicht untersucht

Tabelle 40: Identifizierung: *M. kansasii*

Patienten:	Def.	PC	HD	EF	JPF	HH	MH	SL	KL	EM	GP	HR
Morphologie <sup>1</sup>	SR/S	- <sup>4</sup>	-	-	-	R	-	-	-	-	-	-
Temperaturopt. °C	25-37	37	30-37	30-37	30-37	37	30-37	37	37	30-37	30-37	37
Pigment <sup>2</sup>	P	P	P	P	P	P	P	P	P	(P)	P	P
Wachstumsgeschw (Tage)	>10	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
Niacin	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
Nitratreduktion	pos	pos	pos	pos	pos	pos	pos	neg	pos	pos	pos	pos
Pyrazinamidase 0,1%	d <sup>3</sup>	pos	pos	pos	(pos)	pos	pos	pos	pos	pos	pos	pos
BSH	R	R	R	R	R	R	R	pos	R	R	R	R
Tween-Hydrolyse	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos
Urease	pos	pos	pos	pos	pos	pos	pos	neg	pos	(pos)	pos	pos
Arylsulfatase	d	neg	neg	neg	neg	neg	neg	neg	neg	(pos)	neg	(pos)
Toleranz v. 5% NaCl	neg	neg	neg	neg	-	neg	neg	-	neg	-	-	neg
Katalase semiquantitativ.	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos
Katalase 68°C	pos	pos	pos	pos	pos	pos	pos	pos	(pos)	-	pos	pos
Mc Concay	neg	neg	neg	neg	-	neg	neg	-	neg	neg	neg	neg
Telluritreduktion	neg	neg	neg	neg	neg	neg	neg	neg	neg	-	neg	neg
Eisenaufnahme	neg	-	-	-	-	-	-	-	-	-	-	-
Sequenzierung	<i>M. kan.</i>	-	-	-	<i>M. kan.</i>	<i>M. kan.</i>	-	-	<i>M. kan.</i>	-	-	-

1 Kolonienmorphologie: R:rauh, S:glatt, SR: rauh-glatt, f: filamentöse Ausläufer  
 3 d: wechselnder Reaktionsausfall

2 Pigment: P: photochromogen, S: skotochromogen, N: nonchromogen  
 4 -: nicht untersucht

Tabelle 41: Identifizierung: *M. malmoense*

Patienten:	Def	HB	OK	HM	AS
Morphologie <sup>1</sup>	S	- <sup>4</sup>	-	-	-
Temperaturoptimum°C	22-32	30-37	37	30	30-37
Pigment <sup>2</sup>	N	N	N	N	N
Wachstumsgeschw. (Tage)	>10	14	21	21	14-21
Niacin	neg	neg	-	neg	neg
Nitratreduktion	neg	pos	-	((+))	neg
Pyrazinamid 0,1%	d <sup>3</sup>	pos	neg	pos	pos/neg
Brenzschleimsäurehydrazid	R	R	pos	R	R
Tweenhydrolyse	pos	pos	neg <sup>5</sup>	pos	pos
Urease	d	pos	pos	neg	pos
Arylsulfatase	neg	neg	neg	neg	neg
Toleranz 5% NaCl	neg	neg	neg	-	neg
semiquantitative Katalase	neg	neg	-	neg	verunreinigt
Katalase 68°C	d	neg	neg	pos	neg*
Mc Concay	neg	neg	neg	-	neg
Telluritreduktion	neg	neg	-	neg	neg
Eisenaufnahme	neg	-	neg	-	-
Sequenzierung/Spacer	<i>M. malm.</i>	-	<i>M. malmoense</i>	-	-

\* geringe Keimaussaat, bedingt verwertbar

1 Kolonienmorphologie: R:rauh, S:glatt, SR: rauh-glatt, f: filamentöse Ausläufer

2 Pigment: P: photochromogen, S: skotochromogen, N: nonchromogen

3 d: wechselnder Reaktionsausfall

4 -: nicht untersucht

5 kein Wachstum auf Löwenstein-Jensen Nährboden



Tabelle 42: Identifizierung: *M. szulgai*

Patienten:	Def.	JB	WG	DK	HJS
Morphologie <sup>1</sup>	<b>S/R</b>	- <sup>4</sup>	-	-	-
Temperaturoptimum °C	<b>25-36</b>	30-37	30-37	30-37	30-37
Pigment <sup>2</sup>	<b>S/P*</b>	22° P 37°S	22° P 37° S	S	S
Wachstumsgeschw.(Tage)	<b>&gt; 10</b>	14-21	14-21	14-21	14-21
Oberfl./Tiefenwachstum	-	-	-	-	-
Niacin	<b>neg</b>	neg	neg	neg	neg
Nitratreduktion	<b>pos</b>	pos	pos	neg	pos
Pyrazinamidase 0,1%	<b>pos</b>	pos	pos	pos	(pos)
Brenzschleimsäurehydrazid	<b>R</b>	R	R	R	R
Tween-Hydrolyse	<b>10 T.:d<sup>3</sup></b>	10T:(+)	10T:(+)	10 T: neg	10T: pos
Urease	<b>pos</b>	pos	pos	pos	pos
Arylsulfatase	-	neg	neg	neg	pos
Toleranz v. 5% NaCl	<b>neg</b>	neg	neg	neg	neg
semiquantitative Katalase	<b>pos</b>	pos	pos	pos	pos
Katalase 68°C	<b>pos</b>	pos	pos	pos	pos
Mc Concay	<b>neg</b>	-	neg	neg	neg
Telluritreduktion	<b>d</b>	neg	neg	neg	neg
Eisenaufnahme	<b>neg</b>	-	-	-	-
<b>Sequenzierung</b>	<b><i>M. szulgai</i></b>	-	<i>M. szulgai</i>	<i>M. szulgai</i>	-

\* *M. szulgai* kann bei 25 °C photochromogen sein

1 Kolonienmorphologie: R:rauh, S:glatt, SR: rauh-glatt, f: filamentöse Ausläufer

2 Pigment: P: photochromogen, S: skotochromogen, N: nonchromogen

3 d: wechselnder Reaktionsausfall

4 - nicht untersucht

Tabelle 43: Identifizierung: *M. simiae*, *M. celatum*, *M. gordonae*, *M. shimoidei*, *M. heckeshornense*

Patienten:	Def.	UH	CH	<i>M. avium</i>	HH	Def.	MA	Def.	KM	<i>M. xenopi</i>	PR
Spezies	<i>M. simiae</i>			<i>M. celatum</i>		<i>M. gordonae</i>		<i>M. shimoidei</i>		<i>M. heckeshornense</i>	
Morphologie <sup>1</sup>	S	-	-	Sf/R	-	S	-	R	R	Sf	-
Temperaturoptimum °C	30-36	37(30-37)	37	30-36	30-37	25-32	30-36	32-42	37-45	36-45	37-45
Pigment <sup>2</sup>	P	P	P	N	N	S	S	N	N	S	S
Wachstumsgeschw. (Tage)	> 10	14	21	>10	21	>10	>10	>10	21	>10	21 T
Niacin	pos	pos	pos	neg	neg	neg	neg	neg	neg	neg	neg
Nitratreduktion	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	pos
Pyrazinamidase 0,1%	d	(pos)	pos	pos	neg	d	d	pos	(pos)	d <sup>3</sup>	pos
Brenzschleimsäurehydrazid	R	R	R	R	R	R	R	R	R	neg	R
Tween-Hydrolyse	neg	neg	neg	neg	neg	pos	pos	pos	pos	neg	(pos)14 T
Urease	pos	(pos)	pos	neg	neg	neg	neg	neg	neg	neg	neg
Arylsulfatase	neg	neg	neg	neg	pos	neg	neg	neg	neg	pos	neg
Toleranz v. 5% NaCl	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
semiquantitative Katalase	pos	pos	pos	neg	neg	pos	pos	neg	neg	neg	neg
Katalase 68°C	pos	pos	pos	pos	pos	pos	pos	pos	neg	pos	pos
Mc Concay	neg	neg	-	neg	neg	neg	neg	neg	neg	neg	neg
Telluritreduktion	neg	neg	-	pos	neg	neg	neg	neg	neg	d	pos
Eisenaufnahme	neg	-	-	neg	-	neg	neg	neg	-	neg	-
Sequenzierung/Spacer	/.	<i>M. simiae</i>	<i>M. simiae</i>	<i>M. avium</i>	<i>M. celatum</i> <sup>5</sup>	<i>M. gordon.</i>	<i>M. gordon.</i>	<i>M. shim.</i>	<i>M. shim.</i>	<i>M. xenopi</i>	<i>M. Heckh.</i>

1 Kolonienmorphologie: R:rauh, S:glatt, SR: rauh-glatt, f: filamentöse Ausläufer

3 d: wechselnder Reaktionsausfall

5 16S rDNA Sequenzanalyse und Analyse des Restriktions-Fragmentlängen-Polymorphismus der Sequenz des Hsp65 Gens durchgeführt

2 Pigment: P: photochromogen, S: skotochromogen, N: nonchromogen

4 -: nicht untersucht

Tabelle 44: Identifizierung: *M. chelonae* und *M. abscessus*

Patienten:	Def.	LH	KZ	EK
<b>Spezies</b>	<i>M. abscessus</i> / <i>M. chelonae</i>	<i>M. abscessus</i>	<i>M. abscessus</i>	<i>M. chelonae</i>
Mikroskopie		neg	säuref. Stäbchen	-
Kolonie-Morphologie	<b>S/R</b>	- <sup>4</sup>	-	-
Temperaturoptimum °C	<b>25-36°</b>	22-37°	22-45°	30-37°
Pigment	<b>N</b>	N	-	N
Wachstumsgeschw. (Tage)	<b>&lt; 7</b>	4-7	3-14	4
Niacin	<b>d3</b>	neg	neg	neg
Nitratreduktion	<b>neg</b>	neg	(pos)	neg
Pyrazinamidase 0,1%	<b>pos</b>	pos	pos	pos
Brenzschleimsäurehydrazid	<b>R</b>	R	R	R
Tween-Hydrolyse	<b>d</b>	neg	neg	neg
Urease	<b>pos</b>	pos	pos	pos
Arylsulfatase	<b>pos</b>	pos	pos	pos
Toleranz v. 5% NaCl	<b>pos (neg*)</b>	pos	pos	neg
semiquantitative Katalase	<b>d</b>	pos	pos	pos
Katalase 68°C	<b>d</b>	neg	pos	pos
Mc. Concay	<b>pos</b>	pos	pos	pos
Telluritreduktion	<b>pos</b>	pos	pos	pos
Eisenaufnahme	<b>neg</b>	-	-	neg
<b>Sequenzierung</b>	<i>M. abscessus</i> / <i>M. chelonae</i>	<i>M. chelonae</i>	-	-

\* *M. abscessus* ist positiv, *M. chelonae* negativ

**1** Kolonienmorphologie: R:rauh, S:glatt, SR: rauh-glatt, f: filamentöse Ausläufer

**2** Pigment: P: photochromogen S: skotochromogen N: nonchromogen

**3** d: wechselnder Reaktionsausfall

**4** - nicht untersucht

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