

外科領域における Pivampicillin の臨床試用成績

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Ampicillin の pivaloyloxymethyl-ester である Pivampicillin を経口投与すると、生体内ですみやかに分解されて Ampicillin となり、高い体液中濃度を示すので、その臨床効果が期待されている。このたび私たちは、外科領域における軟部組織の感染症例に本剤を試用したので、その結果をここに報告する。

臨床試用対象ならびにその成績

本剤を主として急性軟部組織感染症の 57 例に投与した。その内訳は、フルンケル 14 例、膿瘍 10 例、感染粉瘤 5 例、蜂窠織炎および瘻瘻 13 例、骨髄炎、リンパ節炎など各種感染症 10 例、感染を伴う熱傷 2 例、腹膜炎 1 例、感染性創 2 例などである。

大多数の症例には、本剤を 1 回 250mg (125mg 入カプセル 2 コ) ずつ、毎食後および就寝前の 1 日 4 回、計 1,000mg を経口投与したが、一部の症例には、1 回 375mg (125mg 入カプセル 3 コ) ずつ、毎食後、1 日 3 回、計 1,125mg を経口投与した。投与期間は 3~14 日間、投与総量は 3~14.5g である。本剤を投与された臨床例を一括して Table 1 に示した。

臨床効果の判定は Table 2 に示す基準にしたがって、著効、有効、やや有効、無効および不明と判定した。以下に疾患別治療成績をのべる。

1. フルンケル：14 例 (Table 1, 症例 1~14) 中、著効 5 例、有効 8 例、無効 1 例で、有効率は 92.9% である。このなかの無効例は、長期間にわたる瘻瘻型面疔で、本剤 375mg ずつ、1 日 3 回、9 日間投与された

が、症状の改善がみられなかったものである。

2. 膿瘍：10 例 (Table 1, 症例 15~24) 中著効 1 例、有効 8 例、無効 1 例で、有効率は 90%。このなかには本剤による治療開始前すでに切開をうけていたものが 2 例あるが、これらは、いずれも有効例のなかに含まれている。無効の 1 例 (症例 24) は、すでに自潰して瘻孔化のみられた直腸周囲膿瘍で、本剤を 7 日間投与されても、この期間内には症状の改善がみられなかったものである。

3. 感染粉瘤：5 例 (Table 1, 症例 25~29) 中著効 2 例、有効およびやや有効各 1 例、無効 1 例である。この無効例 (症例 29) は、発病後 25 日目に本剤による治療の開始されたもので、1 回 375mg ずつ、1 日 3 回、7 日間投与されたが、その症状が改善されなかった。

4. 蜂窠織炎および瘻瘻：13 例 (Table 1, 症例 30~42) 中有効 7 例、やや有効 4 例、無効 1 例、不明 1 例で、有効率は 84.6%。

無効例 (症例 42) は右中指瘻瘻のため、250mg ずつ、1 日 4 回、7 日間投与されたが、症状が改善されなかったため、のちに切開を加えられた。また効果不明の症例 (症例 32) は右足蜂窠織炎で、初診と同時に本剤の投与を開始、切開を加えられたが、その翌日から患者が来院しなくなったため、効果が明らかでない。

5. リンパ節炎およびそのほかの感染症：10 例 (Table 1, 症例 43~52) 中著効 2 例、有効 8 例、有効率 100%。

6. 感染性創：5 例 (Table 1, 症例 53~57) 中有効 4 例、やや有効 1 例。

Table 1. Results of a clinical trial of pivampicillin on infectious diseases of the soft

Case No.	Case	Age	Sex	Diagnosis	Isolated organism	Sensitivity to Antibiotics MIC (mcg/ml)								Method of Administration			
						PCG	ABPC	TC	SM	KM	CER	EM	CP	Dose per Administration (mg)	Dose per Day (g)	Duration (day)	Total Dose (g)
1	K.K.	18	M.	Furuncle of right gluteal region	<i>Staph. aureus</i>	100	>100	100	6.25	6.25	0.4	>100	6.25	250	1.0	3	3.0
2	K.U.	29	F.	Furunculosis on the abdomen, gluteal region and thigh										250	1.0	7	7.0
3	S.S.	29	M.	Furuncle at the tip of the nose										250	1.0	3	3.0
4	N.M.	21	F.	Facial furuncle	<i>Staph. aureus</i>	0.05	0.05	>100	>100	6.25	0.1	0.4	6.25	250	1.0	3	3.0
5	S.D.	41	F.	Furuncle on the right lower jaw										375	1.125	4	4.5
6	M.I.	28	F.	Furuncle on the left submandibular jaw										250	1.0	3	3.0
7	F.K.	24	M.	Furuncle below the right knee										250	1.0	3	3.0
8	K.U.	61	M.	Furuncle on the nuchal region										375	1.125	3	3.375
9	M.S.	38	F.	Furuncle on the back of nose	<i>Staph. epid.</i>	3.13	6.25	25	12.5	6.25	0.2	0.8	100	250	1.0	3	3.0
10	N.I.	25	M.	Furuncle on the right lower thigh										375	1.125	5	5.625
11	T.O.	17	M.	Furuncle on the right chest										375	1.125	6	6.750
12	S.Y.	34	F.	Furuncle on the right foot										375	1.125	6	6.750
13	T.I.	20	M.	Facial furuncle (acne type)										375	1.125	9	10.125
14	Y.F.	20	F.	Furuncle on the right upper eyelid	<i>Staph. aureus.</i>	25	50	0.4	25	125	0.4	0.4	3.13	250	1.0	3	3.0
15	T.A.	53	M.	Abscess in the nuchal region										250	0.75	8	6.0
16	H.Y.	27	M.	Periproctal abscess	<i>E. coil</i>									250	1.0	6	6.0
17	M.M.	41	F.	Periproctal abscess										250	1.0	7	7.0
18	T.Y.	44	M.	Abscess of the gingiva of left lower jaw	<i>Negative culture</i>									250	1.0	10	10.0
19	S.T.	24	F.	Abscess of the left upper eyelid	<i>Staph. epid.</i>	0.05	0.05	0.2	6.25	1.6	0.2	0.2	6.25	375	1.125	7	7.875

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Surgical Theraph	Therapeutic Effect	Side Effect	Evaluation of Effect
	After 2 days, inflammatory signs improved and healing after 4 days	None	Good
	After 3 days, signs improved. After 6 days, near-complete healing.	Nausea on the second day. Diarrhea on the 3rd day. Eruption on the 7th day.	Good
	Healing after 3 days.	None	Excellent
Puncture	After 2 days, exsudation stopped. Pain disappeared.	None	Excellent
	Healing after 5 days.	Epigastric pain from the 4th day.	Good
Incision on the 2nd day	After 5 days, exsudation and pain disappeared.	None	Good
	After 3 days healing assumed.	None	Good
	Healing after 3 days.	None	Excellent
	Healing after 3 days.	Nausea on the 2nd day; medication discontinued.	Excellent
	After 3 days, signs improved. Healing after 5 days.	None	Good
	After 3 days, symptoms improved. Healing after 7 days.	None	Good
	After 3 days, symptoms improved. Healing after 7 days.	None	Good
	No improvement of symptoms.	None	Nil
	On the 4th day, exsudation, pain and redness disappeared and induration became smaller.	None	Excellent
Incision on the first day of visit	Pain subsided on the 5th day, pus discharge stopped, and induration became smaller.	None	Good
Incision on the first day of visit	After 3 days, favorable granulation tissue appeared and pus retention stopped.	None	Good
	Pain improved after 4 days.	None	Good
	Fever subsided on the 2nd day. Reddeness and pain disappeared.	Pyrrasis from the 10th day.	Good
Puncture on the first day of visit	Fever subsided on the 2nd day. Symptoms markedly improved.	Generalized eruption on the 7th day.	Good

Table 1 (continued)

Case No.	Case	Age	Sex	Diagnosis	Isolated organism	Sensitivity to Antibiotics MIC (mcg/ml)								Method of Administration				
						PCG	ABPC	TC	SM	KM	CER	EM	CP	Dose per Administration (mg)	Dose per Day (g)	Duration (day)	Total Dose (g)	
20	T.N.	43	M.	Abscess of left lower eyelid											375	1.125	7	7.875
21	S.T.	46	M.	Abscess after colectomy	<i>E. coil</i>	-	++	+++		-	+++	+	+++		250	1.0	7	7.0
22	S.A.	46	M.	Recurrence of retroperitoneal abscess	<i>E. coli</i> <i>Klebsiella</i>	-	-	-		-	+++	+	-		375	1.125	7	7.875
						-	-	+++		+++	+++	-	+++					
23	F.U.	62	F.	Perineal abscess	<i>Proteus mirabilis</i>	-	+++	++		+++	+++	-	+++		250	1.0	7	7.0
24	S.D.	39	M.	Perirectal abscess	<i>Staph. aureus.</i>										250	1.0	7	7.0
25	S.A.	41	M.	Infected atheroma of left breast region / Postoperative suture abscess	<i>Staph. epid.</i>										375	1.125	7	7.875
26	S.Y.	55	M.	Infected atheroma in the left retroauricular region	<i>Staph. epid.</i>	0.05	0.2	0.4	6.25	0.8	0.05	0.4	3.13		375	1.125	7	7.875
27	K.N.	55	M.	Infected atheroma in the lumbar region											250	1.0	3	3.0
28	T.O.	27	M.	Infected atheroma in the anterior chest											250	1.0	5	5.0
29	M.Y.	29	M.	Infected atheroma in the nuchal region											375	1.125	7	7.875
30	S.Y.	55	M.	Cellulitis of the left lower thigh	<i>Staph. aureus.</i>	0.1	0.2	0.4	25	3.13	0.2	0.2	6.25		375	1.125	5	5.625
31	R.K.	23	M.	Cellulitis of the left lower thigh	<i>Staph. aureus.</i>	100	100	0.4	25	12.5	0.4	0.4	6.25		375	1.125	5	5.625
32	H.O.	17	M.	Cellulitis of the left foot											375	1.125	3	3.375
33	H.Y.	40	M.	Cellulitis of the left lower thigh											250	1.0	13	13.0
34	S.S.	33	M.	Cellulitis of right axilla	<i>Staph. aureus.</i>	125	2.5	0.8	25	12.5	0.4	0.2	6.25		375	1.125	7	7.875
35	E.K.	48	M.	Cellulitis of right hand	<i>Staph. aureus.</i>	1.6	25	0.4	25	12.5	0.4	0.4	6.25		375	1.125	7	7.875
36	S.K.	29	M.	Panaritium of right ring finger	<i>Staph. aureus.</i>	50	6.25	0.4	12.5	6.25	1.6	0.4	6.25		375	1.125	5	5.625
37	F.K.	26	F.	Periungual infection of right ring finger											250	1.0	7	7.0
38	A.U.	33	F.	Subungual panaritium of the left 5th toe											250	1.0	3	3.0

Surgical Therapy	Therapeutic Effect	Side Effect	Evaluation of Effect
	From the 2nd day, redness disappeared, pain subsided. From the 3rd day, swelling improved.	Liver function aggravated SGOT...104, SGPT 44...205 LPH 44 290...750	Excellent
Colectomy and drainage	Medication started from the 4th day of opening wound. Exsudation decreased after 4 days.	None	Excellent
	Pain improved on the 4th day. Fever subsided.	None	Good
	On the 8th day, bacterial culture negative.	Eruption on the 10th day.	Good
	No improvement of symptoms.	Unpleasant sensation in the upper abdomen.	Nil
	Symptoms improved on the 3rd day. Healing after 7 days.	None	Excellent
Incision on the first day of visit	Symptoms subsided on the 7th day.	Transient nausea.	Moderate
Incision on the first day of visit	On the 2nd day, exsudate decreased, spontaneous pain improved.	None	Excellent
	Already collapsed, near-complete healing on the 5th day.	None	Good
	No improvement of symptoms	None	Nil
Incision on the first day of visit	After 5 days, symptoms improved.	None	Good
"	After 4 days, inflammatory symptoms disappeared, wound healed on the 12th day.	None	Moderate
"	After initial examination, patient failed to come.	None	Unknown
	After 2 days, pain and pus discharge improved. After 5 days, redness and swelling disappeared.	None	Good
Incision on the initial day of visit	After 2 days, pus discharge decreased but induration persisted.	None	Moderate
"	Pain improved after 2 days. Swelling disappeared after 3 days.	None	Good
"	Symptoms improved after 3 days.	None	Good
Nail resection on the first day of visit	After 2 days, symptoms improved. After 6 days, discharge stopped.	Gastric pain on the 2nd day.	Good
Incision on the initial day of visit	On the 3rd day, pus discharge stopped. After 11 days, healing.	None	Good

Table 1 (continued)

Case No.	Case	Age	Sex	Diagnosis	Isolated organism	Sensitivity to Antibiotics MIC(mcg/ml)								Method of Administration				
						PCG	ABPC	TC	SM	KM	CER	EM	CP	Dose per Administration (mg)	Dose per Day (g)	Duration (day)	Total Dose (g)	
39	K.I.	40	M.	Panaritium of the left middle finger											375	1.125	5	5.625
40	S.T.	26	F.	Panaritium of the left first toe											375	1.125	3	
41	T.M.	50	F.	Panaritium on the right IV th toe											375	1.125	3	3.375
42	M.Y.	31	F.	Panaritium on the right middle finger											250	1.0	7	9.0
43	M.T.	52	M.	Recurrence of osteomyelitis of the right lower thigh											375	1.125	8	9.0
44	R.K.	42	M.	Foveolar tonsillitis											375	1.125	6	6.750
45	S.T.	23	M.	Suppurative left orchitis and epididymitis	1. <i>Staph. aureus</i> 2. gram negative rod										250	1.0	13	13.0
46	Y.N.	26	F.	Left cervical lymphadenitis											250	1.0	5	5.0
47	M.N.	24	M.	Suppurative lymphadenitis of the rightinguinal region											250	1.0	6	6.0
48	S.K.	9	F.	Lymphadenitis of the left mental region											125	0.5	14	7.0
49	T.N.	23	F.	Suppurative lymphadenitis of the left axilla											250	1.0	7	9.0
50	A.S.	50	M.	Umbilicicis	<i>Staph. aureus.</i>	100	100	1.6	25	6.25	0.4	100	6.25	250	1.0	10	10.0	
51	M.S.	25	F.	Right pipilitis											250	1.0	3	3.0
52	T.N.	26	F.	Suppurative left mastitis	<i>Staph. aureus.</i>										250	1.0	3	3.0
53	Y.D.	44	M.	Burn on head, face, right side of the neck, right upper extremity, right chest wall	<i>Staph. aureus.</i> <i>Staph. aureus.</i>	100 0.8	100 0.4	50 100	12.5 100	0.2 100	100 12.5	100 100	25 100	250	1.0	7	7.0	
54	T.Y.	51	F.	Burn on right forearm, hand, face											375	1.125	11	12.375
55	Y.I.	28	M.	Perforating peritonitis, Abdominal wall fistula of ileocaecal region											375	1.125	12	14.5
56	S.I.	34	M.	Right thumb, infected contusion											375	1.125	3	3.375
57	N.M.	18	F.	Left lower thigh, infected cut wound											375	1.125	6	6.75

Surgical Therapy	Therapeutic Effect	Side Effect	Evaluation of Effect
Incision on the second day of visit	Healing on the 6th day.	None	Moderate
Nail resection on the first day of visit	Spontaneous collapse on the 2nd day. Symptoms improved.	None	Moderate
	From the 2nd day, pain improved. Healing on the 5th day.	Epigastric discomfort	Good
Incision on the third day	Incision because of the absence of improvement of symptoms.	None	Nil
Puncture on the third day	Fever subsided from the 2nd day and pain improved. Swelling and redness improved from the third day.	Gastrointestinal disturbance; medication discontinued.	Good
	Fever subsided on the 2nd day. Reddeness and swelling improved on the 4th day.	None	Good
Incision on the initial day of visit	On the 5th day, redness, swelling and pain disappeared. Pus discharge stopped.	Chest pain on the 4th day.	Good
	Fever subsided on the 5th day. Swelling subsided.	Eruption on the 5th day.	Good
	After 2 days, fever subsided. After 3 days, redness, pain, pus discharge disappeared. After 4 days, swelling subsided.	Anorexia, nausea; medication discontinued.	Excellent
	On the 2nd day, pain and redness decreased. From the 4th day swelling improved.	None	Good
	Symptoms improved on the 3rd day. Nearcomplete healing on the 7th day.	None	Good
Incision on the first day of visit	Pain improved on the 4th day. Pus discharge disappeared. Induration became smaller.	None	Good
	After 3 days, pustules disappeared.	None	Excellent
Puncture on the first visit.	Pus discharge stopped on the 6th day.	On the 2nd day, anorexia, nausea, gastric pain, pyrosis; medication discontinued.	Good
	Pus decreased on the 6th day.	None	Moderate
	Prevention of infection, wound healing	None	Good
	After 2 days, fever subsided. After 4 days, pus discharge decreased.	None	Good
	Healing after 5 days.	None	Good
	From about the 3rd day, the drug was administered. Wound did not open. Secondary healing on the 15th day.	None	Good

以上を総合すると、57症例のうち著効、有効およびやや有効であった症例を合計すると51例となり、無効例は

Table 2 Criteria for evaluating the effectiveness of an agent on infectious diseases of the soft tissues

Taking into consideration the symptoms of fever, reddening, swelling, induration, pain, sensation of heat, pus discharge, leukocyte count, blood sedimentation rate, and bacteriological test results, overall evaluations were carried out as follows.

1. Excellent effect: All favorable changes including the positive disappearance of the causative bacteria within 3 days of the drug administration.
2. Good effect: These favorable changes occurring within 5 days after drug administration.
3. Moderate effect: The disappearance of more than one of the symptoms described above within 7 days.
4. No effect: No changes occurring within 7 days after the administration of the drug.
5. Aggravation: Symptoms aggravated 7 days after from the time of drug administration.
6. Unknown: The evaluation of the results was impossible due to accidental causes and other reasons during treatment.

5例、不明1例で、有効率は89.4%となった。

7. 副作用: 57症例のうち16例(28.1%)に副作用がみとめられた(Table 3)。すなわち、胃腸障害12例、発疹3例、胃腸障害と発疹の併発1例、肝機能の悪化1例で、副作用のため投薬を中止した症例は15例中7例である。なお臨床検査成績は Table 4, 5 に示すとおり、肝機能の悪化を認めた1例以外は、特に異常を認めなかった。本症例はもともと肝疾患の既往歴を有するものであり、投与終了後の経過を追っていないので、本剤によるものかどうかは断定できない。これらの副作用をきたした症例では、1回投与量と投与総量との間に関連を求めがたかった。したがって、本剤に由来すると思われるこのような副作用は、投与量の多寡に起因すると考えるよりは、むしろ本剤特有の薬理作用に由来するものと考えたい。

む す び

私たちは、Pivampicillinを軟部組織の急性感染症に試用した。投与対象が主として外来患者であったので、起炎菌の分離、薬剤感性の追求など臨床諸検査成績のそろわなかったものも含まれている。しかし、その治療成績は90%に近い有効率を示している。なお、本剤を投与された57例中16例に副作用がみとめられ、そのうち7例では投薬を中止せざるをえなかった。

Pivampicillinの経口投与には軽度の消化器障害を伴う

Table 3. Side effects of pivampicillin

Case No.	Dose per administration (number of capsules)	Frequency of administration per day	Duration of treatment (days)	Side effect	Discontinuation of medication
2	2	4	7	Digestive disturbance, Eruption	
5	3	3	4	Digestive disturbance	
9	2	4	3	"	○
18	2	4	10	"	
24	2	4	7	"	
26	3	3	7	"	
35	3	3	3	"	
37	2	4	7	"	
43	3	3	8	"	○
45	2	4	13	"	
47	2	4	6	"	○
52	2	4	3	"	○
19	3	3	7	Eruption	○
23	2	4	7	"	
46	2	4	5	"	○
20	3	3	7	Aggravation of liver function	○

Table 4 Clinical laboratory tests (1)

Case No.	Blood																			
	RBC ($\times 10^4$)		WBC		Hb		Platelet ($\times 10^4$)		Blood picture (%)											
	Before	After	Before	After	Before	After	Before	After	B	E	St	SEg	Ly	Mono						
2	342	385	6,000	6,200	65	75	13.4	13.5	0	0	1	1	4	3	44	61	48	31	3	3
5	426	416	7,500	5,700	83.5	84.5														
18	466	430	8,500	6,900	101	96	23.4	21.5												
19	380	383	5,800	4,000	78	80	16.7	16	0	0	1	1	6	3	47	47	44	46	2	3
20	465	465	8,000	7,300	92	93	18.6	18.6	0	0	7	4	3	4	61	60	25	28	4	4
21	334	402	9,900	6,000	72	78	30	31.5												
23	390	405	4,800	4,200	72	70	31.3	30.2												
25	406	400	11,200	8,000	78	78	24	26												
35	412	402	7,300	7,300	82	81														
42	417	420	7,000	6,500	85	80	16.68	17	0	0	1	2	3	5	61	65	30	25	5	3
43	470	466	7,600	8,200	95	96	20	20	0	0	1	3	3	4	64	60	29	28	3	5
44	468	470	8,400	7,500	95	94	23.4	23	0	0	1	1	3	3	68		25		3	
45	425	428	8,800	8,000	87	88	25.5	25.68	0	0	2	7	7	7	61	56	26	26	4	4
48	406	406	9,800	7,500	83	83	20		0	0		2		3	59		32			
53	324	304	19,000	10,600	63	61.5														
54	425	416	8,800	6,800	90	89	21	20.8	0	0	1	1	5	5	66	68	26	23	2	3
55	452	455	9,000	6,900	93	94	18	18.2	0	0	2	5	2	3	45	55	43	33	8	4

Table 5 Clinical laboratory tests (2)

Case No.	Liver function																													
	Total bilirubin		Bilirubin direct		Bilirubin indirect		Icteric index		S-GOT		S-GPT		Al-pase		CC(L)F		TTT		ZST		Total S-cholesterol (mg/dl)		LDH		Protein urea		BUN (mg/dl)			
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After		
2								25.5	26	27	25	12	7.5			1.1	0.85	3.2	3.7											
5					6.0	6.0	4	4	10.0	10.0	8	32	11	9			3.2	2.1	10.2	8.2										
18								14	11	18	10	10	7.5					6.8	7.3	175	180	180	210					15		
19	0.66	0.32	0.30	0.16	0.36	0.16		25	25.5	25.5	26	11.5	11.5					1.55	1.55	6.3	6.7									
20	1.0	1.32	0.5	1.0	0.5	0.32	6	7.5	49	104	44	205	14	13	+	+	1.9	1.35	6.0	6.3									15	
21	0.7	0.6	0.2	0.2	0.5	0.4	4	3	16	18	21	23	12	12			1.5	1.5	8.0	8.0	140	142								
23	0.6	0.6	0.2	0.1	0.4	0.5	4	4	18	16	20	22	11.5	11			2.1	2.1	12.0	11.0	180	182								
25	0.9	0.9	0.3	0.3	0.6	0.6	4	3	17	16	23	23	11	12			1.6	1.6	8.0	8.0										
35							6.0	6.4	18	18	10	11	8	1.2			1.2	0.9	6.2	6.2										
42								18	18	24	10	7.5	10					1.2	1.2	5.2	4.0	168	180	210	210					
43	0.66	0.5	0.32	0.34	0.18	0.18		28	26	28	25	12	12					1.1	2.2	6.7	8.9			260	180					
44	0.66	0.52	0.4	0.3	0.26	0.22		27.5	26	25	25	7	8					1.1	1.5	5.2	4.0			210	250					
45								27	24	35	29	9	11					1.45	2.0	5.8	5.2	140		230						
48	0.5	0.66	0.32	0.32	0.18	0.34		27	26	23	25	10	10					1.8	2.2	4.5	4.5			410	180					
53							6.6	5	35	19	26	14	6	10					2.4	0.8	8.2	4.1							22	8
54	0.82	0.5	0.32	0.32	0.50	0.18		27	28	26	26	9	8					0.8	0.95	5.2	5.4			400	370					25
55	0.45	0.66	0.2	0.32	0.25	0.34	4	5	28	26	27	28	10	9					1.2	0.85	3.0	3.9	180		230					

ことがすくなくないが、特記すべき重篤な副作用はみられず、外科領域における軟部組織の急性感染症に対して期待の大きい薬剤であると考えられる。

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RESULTS OF A CLINICAL TRIAL OF PIVAMPICILLIN IN THE FIELD OF SURGERY

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Pivampicillin was used in acute infections of soft tissues. Since most of the patients were treated in the outpatient clinic, clinical data such as the isolation of causative organisms and sensitivities to drugs were occasionally insufficient. However, the rate of positive effect was as high as 90 % in these therapeutic results. Side effects were observed in 16 of 57 cases and the administration of the drug had to be discontinued in 7.

The oral administration of pivampicillin was sequentially accompanied by a mild digestive disturbance but no other serious side effects that have been described in the past were encountered. Pivampicillin appeared to be the drug of choice with high expectations in acute infections of the soft tissues in the field of surgery.