UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALZA CORPORATION

Appeal 2008-0539
Reexamination Control 90/007,772
Patent 6,919,092
Technology Center 3900

Decided: March 31, 2008

Before TEDDY S. GRON, ADRIENE LEPIANE HANLON, and CAROL A. SPIEGEL, *Administrative Patent Judges*.

HANLON, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. §§ 134 and 306 from a final rejection of claims 2-23, all of the claims subject to reexamination. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

The Examiner finally rejected claim 2 under 35 U.S.C. §§ 102(a) and 102(e) as being anticipated by Baichwal. Final Office Action mailed June 20, 2006 at 6-8.

The Examiner finally rejected claims 3-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Baichwal in view of Lukkari and a Cystrin® package insert (Doctor's Guide). Final Office Action mailed June 20, 2006 at 9-11.

The Examiner finally rejected claims 3-5, 8-10, 13, 14, 16, 18-20, and 23 under 35 U.S.C. § 102(a) as being anticipated by Rantala. Final Office Action mailed June 20, 2006 at 12-14.

The Examiner finally rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Wong, PDR, and Robinson. Final Office Action mailed June 20, 2006 at 15-16.

The Examiner finally rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Morella and Robinson. Final Office Action mailed June 20, 2006 at 18-19.

The Examiner relied on the following evidence in the rejections on appeal:[1]

Wong	US 5,082,668	Jan. 21, 1992
Morella	US 5,330,766	Jul. 19, 1994
Baichwal	US 5,399,359	Mar. 21, 1995
Rantala	WO 96/12477	May 2, 1996

Thompson G. Robinson & C. Mark Castleden, *Drugs in Focus: 11. Oxybutynin hydrochloride*, Prescribers' Journal, 34(1):27-30 (1994) ("Robinson").

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[1] The Examiner determined that the earliest effective filing date for claim 2 is May 22, 1995, the filing date of Application 08/445,849. The Examiner determined that the earliest effective filing date for claims 3-23 is September 5, 1996, the filing date of Application 08/706,576. Final Office Action mailed June 20, 2006 at 4-5. The Appellant does not challenge these dates on appeal.

English Translation of Finnish Package Insert for CYSTRIN® CR 10 mg Sustained-Release Tablets (1997) ("Cystrin® package insert" or "Doctor's Guide").

Eeva Lukkari, *Clinical Pharmacology of Oxybutynin, with Special Reference to Pharmacokinetics and Interactions* (1997) (academic dissertation, University of Helsinki) ("Lukkari").

Physician's Desk Reference 1222-23 (42nd ed. 1988) ("PDR").

B. ISSUES

Whether the Appellant has shown that the Examiner erred in finally rejecting claim 2 under 35 U.S.C. §§ 102(a) and 102(e) as being anticipated by Baichwal.

Whether the Appellant has shown that the Examiner erred in finally rejecting claims 3-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Baichwal in view of Lukkari and the Cystrin® package insert (Doctor's Guide).

Whether the Appellant has shown that the Examiner erred in finally rejecting claims 3-5, 8-10, 13, 14, 16, 18-20, and 23 under 35 U.S.C. § 102(a) as being anticipated by Rantala.

Whether the Appellant has shown that the Examiner erred in finally rejecting claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Wong, PDR, and Robinson.

Whether the Appellant has shown that the Examiner erred in finally rejecting claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Morella and Robinson.

C. FINDINGS OF FACT

The following findings of fact are believed to be supported by a preponderance of the evidence. Additional findings of fact as necessary appear in the Analysis portion of the opinion.

1. Appellant's Invention

The Appellant's invention is directed to managing urinary incontinence with oxybutynin and/or its pharmaceutically acceptable salts. Guittard 2:40-43.[2]

Claims 2 and 3 are illustrative of the subject matter on appeal:

> 2. A pharmaceutical dosage form comprising 240 ng to 650 mg of a member selected from the group consisting of oxybutynin and its pharmaceutically acceptable salts, the dosage form being adapted to release the member at a controlled and sustained, substantially zero order release rate for about 24 hours for treating incontinence in a patient.
>
> 3. A dosage form comprising 5 mg to 250 mg of a member selected from the group consisting of oxybutynin and its pharmaceutically acceptable salt, wherein (i) said dosage form provides a maximum plasma oxybutynin concentration of about 0.28 ng/ml to about 0.45 ng/ml per mg of said member in said dosage form and (ii) wherein said dosage form delivers said member from said dosage form over a period of about 24 hours for treating incontinence in a patient.

"Dosage form" denotes a drug delivery system for administering a therapeutically effective dose of drug. Guittard 2:57-60.

"Zero-order release" denotes drug delivery at a uniform rate to dampen the peaks and valleys observed in non-zero order drug delivery. Guittard 3:1-3.

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[2] Patent 6,919,092 to Guittard et al.

2. Baichwal

The invention disclosed in Baichwal relates to a solid sustained release oral dosage formulation of oxybutynin or a pharmaceutically acceptable salt thereof. Baichwal 1:62-2:6.

The invention also relates to a method of treating a patient by orally administering a solid dosage form of the formulation, e.g., a tablet, to the patient. Baichwal 2:28-31.

According to Baichwal, "sustained release" means that the therapeutically active medicament is released from the formulation at a controlled rate such that therapeutically beneficial blood levels of the medicament are maintained over an extended period of time, e.g., providing a 24 hour dosage form. Baichwal 2:38-44.

The solid sustained release oral dosage forms of the invention preferably contain from about 5 to about 20 mg oxybutynin by weight. In a most preferred embodiment, the dosage form includes about 10 mg oxybutynin. Baichwal 3:5-9.

Example 3 describes a sustained release oxybutynin tablet containing 2.9% oxybutynin hydrochloride. The tablet weight is 348.3 mg. Baichwal 7:35-64. Thus, the tablet contains 10.1 mg of oxybutynin hydrochloride (0.029 x 348.3 mg).

The rate of release of the oxybutynin tablet described in Example 3 over a 24 hour period is reported in Table 6 (Baichwal 8:6-19):

TABLE 6

Apparatus: Type II
Media: pH 1.5 buffer
Agitation: 50 rpm
Volume: 900 mL

Time (hrs)	Ex. 3	Ex. 4
0	0.0	0.0
2	31.3	46.7
4	53.6	73.9
8	73.0	95.9
12	86.2	99.8
16	92.3	101.1
20	92.7	102.4
24	96.1	100.0

3. Lukkari

Lukkari discusses the results of two studies examining the effect of food on the pharmacokinetics of oxybutynin (Study IV) and the effect of timing of food on the pharmacokinetics of oxybutynin (Study V). Lukkari 22.

A single dose 10 mg CR ("controlled release") tablet was administered in Studies IV and V. Lukkari 22, Table 1. The 10 mg CR tablet contained 10 mg oxybutynin hydrochloride in a controlled release matrix tablet (Cystrin®, manufactured by Leiras Oy, Turku, Finland). Lukkari 24:2.

The results of Studies IV and V are reported in Table 2. Lukkari 31.

In Study IV (fasting versus fed), the peak serum concentration (C_{max}) of oxybutynin was 6.2 (5.0-7.7) ng/ml per 10 mg of oxybutynin (0.62 ng/ml per mg of oxybutynin) when administered immediately after breakfast and 2.8 (2.1-3.6) ng/ml per 10 mg of oxybutynin (0.28 ng/ml per mg of oxybutynin) when administered after fasting. Lukkari 31.

In Study V (effect of time interval to food), the peak serum concentration (C_{max}) of oxybutynin was 2.5 (2.0-3.0) ng/ml per 10 mg of oxybutynin (0.25 ng/ml per mg of oxybutynin) when administered after

fasting, 2.8 (2.3-3.5) ng/ml per 10 mg of oxybutynin (0.28 ng/ml per mg of oxybutynin) when administered one hour before breakfast, and 4.3 (3.5-5.4) ng/ml per 10 mg of oxybutynin (0.43 ng/ml per mg of oxybutynin) when administered two hours after breakfast. Lukkari 31.

4. Cystrin® package insert (Doctor's Guide)

According to the package insert, each Cystrin® CR 10 mg sustained-release tablet contains 10 mg of oxybutynin hydrochloride as the active ingredient. Cystrin® package insert 1:9.

Cystrin® CR 10 mg sustained-release tablets are said to be useful for the treatment of increased urgency to urinate and incontinence caused by functional disturbances of the urinary bladder. Cystrin® package insert 1:20-22.

5. Rantala

Rantala discloses a controlled release oral drug delivery system comprising a therapeutically effective amount of oxybutynin or a pharmaceutically acceptable salt thereof and a controlled release excipient. Rantala 2:33-3:11.

Rantala also discloses a method of maintaining, in a human subject, a therapeutically sufficient concentration of oxybutynin in the blood for an extended period of time. The method comprises orally administering to the subject a controlled release tablet containing 5 to 20 mg of oxybutynin. Rantala 6:20-27.

Rantala discloses the results of a study assessing the bioavailability of oxybutynin after a single peroral dose of 10 mg of oxybutynin chloride. Rantala 10:3-8.

Rantala reports that a peak serum oxybutynin concentration of 2.13 ng/ml was observed after administration of the controlled release tablet. Rantala 12:1-2.

6. Robinson

Robinson discloses that oxybutynin is known for treating urinary incontinence, urgency, and frequency associated with an unstable detrusor muscle. Robinson 28:10-11.

Robinson discloses that oxybutynin is an antispasmodic, local anesthetic, and a weak anticholinergic (antimuscarinic) drug. Robinson 27:11-12.

Robinson discloses an immediate-release oxybutynin formulation. Robinson discloses that most patients require a total daily dose of 10-15 mg of oxybutynin. Robinson 29:27-30:4.

According to Robinson, predictable anticholinergic side-effects of oxybutynin have led a large number of patients to stop treatment. Possible ways of reducing such effects are said to include using a modified-release formulation. Robinson 28:18-21.

7. PDR

PDR discloses that a Ditropan® tablet contains 5 mg of oxybutynin chloride. PDR 1222.

The usual dose of Ditropan® is one 5 mg tablet two to three times a day. PDR 1223.

Ditropan® is said to exert a direct antispasmodic effect on smooth muscle and inhibit the muscarinic action of acetylcholine on smooth muscle. PDR 1222.

8. Wong

Wong discloses a delivery system that is said to be useful for dispensing small amounts, i.e., minidoses, of beneficial agents at a controlled rate. Wong 1:35-38.

The delivery system is said to avoid patient compliance problems and minimize side effects. Wong 4:21-25.

The term "beneficial agent" includes a drug. The term "drug" includes any physiologically or pharmacologically active substance that produces a local or systemic effect. Wong 19:49-53.

Drugs that can be delivered according to the invention disclosed in Wong include drugs that act on cholinergic receptors and smooth muscles. These drugs include anesthetics, muscle relaxants, and urinary tract drugs. Wong 19:65-20:24.

The delivery system disclosed in Wong has a substantially zero order release rate over a 24 hour period. Wong, Figure 11.

9. Morella

The invention disclosed in Morella relates to a sustained release pharmaceutical composition. Morella 1:9-10.

"Sustained release" is said to mean release of an active ingredient at such a rate that blood levels are maintained within the therapeutic range but below toxic levels over an extended period of time, e.g., 10 to 24 hours or greater. Morella 2:39-43.

Less fluctuation in plasma concentration of an active ingredient at a steady state over a 24 hour period is said to be encountered when the active ingredient is provided in a sustained release pellet form. Morella 7:14-18.

In a preferred aspect of the invention a sustained release pharmaceutical pellet composition is provided comprising (i) a core element including at least one active ingredient of high solubility; and (ii) a hybrid core coating which provides a slow rate of release of an active ingredient at a highly acidic pH and a relatively constant faster rate of release at a less acidic to basic pH over an extended period of time. Morella 8:18-27.

Active ingredients of high solubility include genitourinary smooth muscle relaxants such as oxybutynin hydrochloride. Morella 5:29-32.

Figure 5 illustrates the dissolution profile of an active ingredient, i.e., a morphine sulfate formulation, at a pH of 1.2 for a 24 hour period. Morella 2:61-62; see also Morella 16:43-56 (Table 5).

D. PRINCIPLES OF LAW

A claim is anticipated if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Inherent anticipation does not require a person of ordinary skill in the art to have recognized an inherent disclosure at the time of the invention. *Schering Corp v. Geneva Pharmaceuticals Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003). An inherent function is not necessarily known. *Atlas Powder Co. v. Ireco, Inc.*, 190 F.3d 1342, 1348-49 (Fed. Cir. 1999).

Where the claimed and prior art products are identical or substantially identical, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of the claimed product. *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977).

A claimed invention is not patentable if the subject matter of the claimed invention would have been obvious to a person having ordinary skill in the art at the time the invention was made. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007); *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Facts relevant to a determination of obviousness include (1) the scope and content of the prior art, (2) any differences between the claimed invention and the prior art, (3) the level of skill in the art, and (4) any relevant objective evidence of obviousness or non-obviousness. *KSR*, 127 S. Ct. at 1734; *Graham*, 383 U.S. at 17-18.

E. ANALYSIS

1. Baichwal

The Examiner found that Baichwal describes a once-a-day tablet in Example 3 comprising 10 mg oxybutynin hydrochloride having a controlled and sustained, substantially zero order release profile as described in Table 6. Final Office Action mailed June 20, 2006 at 7, 8; Ans. 5, 6.[3]

The Appellant argues that claim 2 is not anticipated by the tablet formulation of Example 3 because a plot of oxybutynin release versus time does not produce a linear plot or reflect a zero order release rate for about 24 hours as claimed. Br. 7-8.[4]

In response, the Examiner explains that even if a plot of the data reported in Table 6 is not exactly linear, claim 2 only requires a "substantially zero order release rate." Ans. 14. The Appellant has not pointed to any error in the Examiner's finding that the data reported in Table

[3] Examiner's Answer mailed March 14, 2007.
[4] Appeal Brief filed November 22, 2006.

6 describes a *substantially* zero order release profile. *See In re Nehrenberg*, 280 F.2d 161, 165 (CCPA 1960) ("substantially" is a broad term).

The Appellant has failed to establish that the Examiner erred in rejecting claim 2 under 35 U.S.C. §§ 102(a) and 102(e) as being anticipated by Baichwal.

2. Baichwal, Lukkari, and Cystrin® package insert

The Examiner did not find that Baichwal expressly describes a maximum plasma oxybutynin concentration within the range recited in claim 3. Nevertheless, the Examiner relied on the Cystrin® package insert and Lukkari to show that the sustained release oxybutynin tablet disclosed in Baichwal provides a maximum plasma oxybutynin concentration within the claimed range when administered to a patient. Final Office Action mailed June 20, 2006 at 10; Ans. 7.

Specifically, referring to the Cystrin® package insert, the Examiner found that the tablet described in Baichwal has been marketed as Cystrin® CR for treating incontinence. Further, referring to Lukkari (Table 2, Studies IV and V), the Examiner found that the maximum plasma oxybutynin hydrochloride concentration (C_{max}) in patients who have ingested Cystrin® CR has been determined to be 0.28 ng/ml per mg of oxybutynin[5] and 0.43 ng/ml per mg of oxybutynin.[6] Final Office Action mailed June 20, 2006 at 10; Ans. 7. The Appellant does not point to any error in the Examiner's findings.

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[5] Oxybutynin administered under fasting conditions or one hour before breakfast. Lukkari 31, Table 2.
[6] Oxybutynin administered two hours after breakfast. Lukkari 31, Table 2.

The Appellant argues that the references relied on by the Examiner fail to establish inherency because Lukkari discloses specific plasma oxybutynin concentrations in the context of test conditions that are not discussed in Baichwal. Br. 8.

The Appellant's argument is not persuasive. Baichwal discloses a sustained release tablet containing 10 mg of oxybutynin hydrochloride. Baichwal also discloses that the tablet may be orally administered to a patient. The Examiner merely relied on Lukkari to show that the tablet disclosed in Baichwal provides a maximum plasma oxybutynin concentration within the range recited in claim 3 when administered to a patient.

Specifically, Lukkari discloses that a controlled release tablet containing 10 mg of oxybutynin hydrochloride provided a peak serum oxybutynin concentration of 0.28 ng/ml per mg of oxybutynin in 23 patients when the tablet was administered after fasting. Lukkari discloses that the tablet also provided a peak serum oxybutynin concentration of 0.28 ng/ml per mg of oxybutynin in 30 patients when the tablet was administered one hour before breakfast. Finally, Lukkari discloses that the tablet provided a peak serum oxybutynin concentration of 0.43 ng/ml per mg of oxybutynin in 29 patients when the tablet was administered two hours after breakfast. Lukkari 31. These peak serum oxybutynin concentrations fall within the range recited in claim 3. The Appellant has failed to establish otherwise.

However, the Appellant argues that even if administering the oxybutynin dosage form disclosed in Baichwal would have occasionally resulted in a maximum plasma oxybutynin concentration within the claimed

range under certain conditions, anticipation would still not be established. The Appellant cites *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043 (Fed. Cir. 1995) for support.[7] Br. 9.

To the extent that the Appellant is arguing that administering the tablet described in Baichwal to the same patients under the same conditions identified above would not always result in a maximum plasma oxybutynin concentration within the claimed range, the Appellant has failed to direct us to any evidence that supports this argument. *See Rohm and Haas Co. v. Brotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997) (nothing in the rules or in jurisprudence requires the fact finder to credit unsupported or conclusory assertions).

Further, to the extent that the Appellant is arguing that administering the tablet described in Baichwal under different conditions results in a maximum plasma oxybutynin concentration outside the claimed range, claim 3 does not limit the conditions under which the tablet is administered.

In sum, the evidence before us establishes that the tablet described in Baichwal (containing 10 mg of oxybutynin hydrochloride in a sustained release formulation) provides a maximum plasma oxybutynin concentration within the range recited in claim 3 when administered to patients after fasting, one hour before breakfast, and two hours after breakfast. *Cf. Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987) (that which would literally infringe if later anticipates if earlier).

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[7] According to the Federal Circuit in *Glaxo*, 52 F.3d at 1047-48, the district court found that practicing Example 32 in Patent 4,128,658 did not always produce the compound in suit. Thus, the Federal Circuit determined that the district court correctly rejected the anticipation defense at issue.

Thus, based on the record before us, it is reasonable to find that the tablet disclosed in Baichwal is substantially the same as the claimed invention. The Appellant has failed to direct us to any evidence establishing otherwise.

The Appellant has failed to demonstrate that the Examiner erred in rejecting claims 3-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Baichwal in view of Lukkari and the Cystrin® package insert.

3. Rantala[8]

The Examiner found that Rantala discloses a controlled and sustained release 10 mg oxybutynin hydrochloride tablet for relieving symptoms related to bladder instability. The Examiner found that Rantala discloses a maximum plasma oxybutynin concentration of 2.13 ng/ml for a 10 mg tablet or 0.213 ng/ml per mg of oxybutynin. The Examiner found that 0.213 ng/ml per mg of oxybutynin is "***about*** 0.28 ng/ml per mg oxybutynin" as recited in claim 3. Final Office Action mailed June 20, 2006 at 13; Ans. 9.

The Appellant argues that the Office has failed to present any evidence supporting its apparent conclusion that one of ordinary skill in the art would deem 0.213 ng/ml/mg to be "about 0.28 ng/ml/mg" despite a difference of nearly 24%, i.e., (0.28 – 0.213)/0.28. Br. 7.

In response, the Examiner explains that during reexamination a claim is to be given the broadest reasonable interpretation consistent with the specification. The Examiner maintains that the specification does not provide a definition of "about" or provide any statistical data relating to

[8] The Appellant argues claims 3-5, 8-10, 13, 14, 16, 18-20, and 23 as a group. 37 C.F.R. § 41.37(c)(1)(vii) (2006).

variations of maximum plasma concentrations. Therefore, the Examiner finds that one of ordinary skill in the art would have considered 0.213 ng/ml/mg to be *about* 0.28 ng/ml/mg. Ans. 17; see also Final Office Action mailed June 20, 2006 at 14.

The Appellant does not demonstrate any error in the Examiner's finding that 0.213 ng/ml per mg of oxybutynin is "***about*** 0.28 ng/ml per mg oxybutynin." Rather, the Appellant attempts to shift the burden back to the Examiner, arguing that the Office has failed to present any evidence to support its finding. The Examiner's finding is reasonable, especially in view of the size of the unit (ng/ml per mg of oxybutynin) and the precision required to measure such a small unit. *See Merck & Co. v. Teva Pharmaceuticals USA Inc.*, 73 USPQ2d 1641, 1646 (Fed. Cir. 2005) (the term "about" should be given its ordinary meaning of "approximately"). Thus, the burden properly shifted to the Appellant to establish that the Examiner's finding was erroneous. *See In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984) (after a prima facie case of unpatentability has been established, the burden of going forward shifts to the applicant). The Appellant has failed to satisfy that burden.

The Appellant has failed to establish that the Examiner erred in rejecting claims 3-5, 8-10, 13, 14, 16, 18-20, and 23 under 35 U.S.C. § 102(a) as being anticipated by Rantala.

4. <u>Wong, PDR, and Robinson</u>

The Examiner found that Robinson discloses that oxybutynin is an antispasmodic, anticholinergic, and antimuscarinic drug for treating incontinence. Robinson discloses an immediate-release oxybutynin

formulation. The Examiner found that Robinson discloses that patients taking oxybutynin may experience anticholinergic side effects. The Examiner found that the side effects of immediate-release oxybutynin hydrochloride (Ditropan®) are also described in PDR. The Examiner found that Robinson suggests a modified release formulation of oxybutynin for reducing the side effects of oxybutynin. Final Office Action mailed June 20, 2006 at 15; Ans. 11.

The Examiner found that Robinson does not describe an oxybutynin formulation having a controlled and sustained, substantially zero order release rate as recited in claim 2. However, the Examiner found that Wong discloses a controlled, sustained release system that may be used for a wide variety of drugs, including drugs that act on the cholinergic receptors or smooth muscles. Since oxybutynin is an antispasmodic, anticholinergic, and antimuscarinic drug, the Examiner found that it would be embraced by the drugs disclosed in Wong. The Examiner concluded that a controlled release formulation of oxybutynin hydrochloride would have been obvious in view of the teachings of Robinson and Wong. Final Office Action mailed June 20, 2006 at 16; Ans. 11-12.

The Appellant argues that there would have been no motivation to combine the teachings of Wong and Robinson because the teachings of Wong and Robinson are inconsistent. Specifically, the Appellant argues that according to the Examiner, the Robinson reference is relevant for its disclosure that oxybutynin possesses undesirable anticholinergic side effects that can be reduced through the use of a modified release formulation of the drug. On the other hand, the Appellant argues that Wong is said to be

relevant for its disclosure of a dosage form for drugs that are intended to act on cholinergic receptors.[9] The Appellant argues that the Examiner has not reconciled this inconsistency. Furthermore, the Appellant argues that there is no reason to believe that one of ordinary skill would have been motivated to incorporate a drug into another dosage form having knowledge of the drug's undesirable side effects. Br. 10.

The Examiner explains that there is no inconsistency between the teachings of Wong and Robinson. The Examiner finds that the drug delivery system disclosed in Wong may be used to deliver drugs that act on cholinergic receptors and smooth muscle. The Examiner finds that Wong teaches that the controlled release drug delivery system minimizes drug side effects. The Examiner finds that this teaching is consistent with Robinson's teaching that the anticholinergic side effects of oxybutynin can be reduced with a modified controlled release formulation. Ans. 17-18. We agree.

The Appellant has failed to demonstrate that the Examiner erred in rejecting claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of Wong, PDR, and Robinson.

5. Morella and Robinson

The Examiner found that Robinson suggests a modified release formulation of oxybutynin for reducing the anticholinergic side effects of oxybutynin. Final Office Action mailed June 20, 2006 at 18; Ans. 12-13.

The Examiner found that Robinson does not describe an oxybutynin formulation having a controlled and sustained, substantially zero order release rate as recited in claim 2. However, the Examiner found that Morella

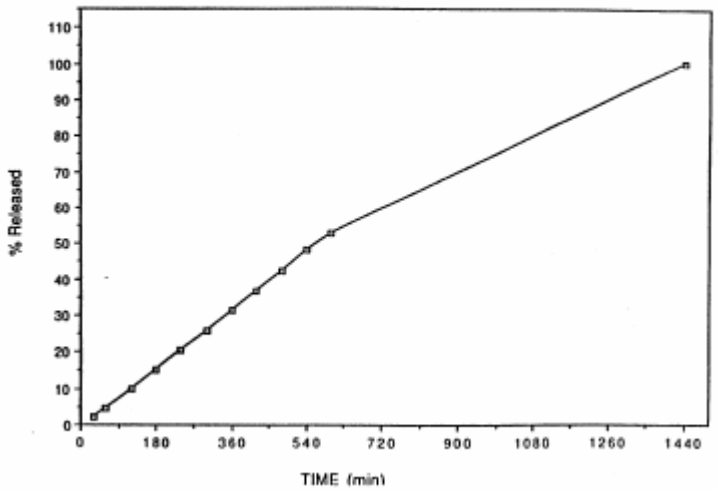
[9] Wong does not disclose whether the drugs activate or deactivate cholinergic receptors. See Wong 19:65-20:8.

discloses a sustained release pharmaceutical composition for a variety of drugs, including oxybutynin hydrochloride. The Examiner found that Figure 5 illustrates and Table 5 describes a substantially zero order release rate of an active drug over a 24 hour period. The Examiner concluded that the combined teachings of Robinson and Morella would have rendered obvious a sustained release oxybutynin hydrochloride formulation as recited in claim 2. Final Office Action mailed June 20, 2006 at 19; Ans. 13.

Referring to Figure 5 of Morella, the Appellant argues that no data points are shown between 600 minutes (10 hours) and 1440 minutes (24 hours). Thus, the Appellant argues that Figure 5 does not show a substantially zero order release rate for about 24 hours. Br. 11.

Although Figure 5 does not show any data points between 600 minutes and 1440 minutes, Figure 5 does suggest a relatively constant release rate between these two points:

FIG. 5



The Examiner points out that Morella specifically defines "sustained release" as "release of active ingredient at such a rate that blood levels are

maintained within the therapeutic range but below toxic levels over an extended period of time e.g. 10 to 24 hours or greater." Morella 2:39-43. The Examiner further points out that Morella states that "[d]esirably the sustained release provides a generally constant rate of release over an extended period." Morella 1:17-19. Thus, the Examiner maintains that Morella indicates that a substantially zero order release rate is desirable. Ans. 18-19. Figure 5 merely illustrates this "substantially zero order release rate."

The Appellant has failed to show that the Examiner erred in rejecting claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Morella and Robinson.

F. DECISION

The rejection of claim 2 under 35 U.S.C. §§ 102(a) and 102(e) as being anticipated by Baichwal is affirmed.

The rejection of claims 3-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Baichwal in view of Lukkari and the Cystrin® package insert (Doctor's Guide) is affirmed.

The rejection of claims 3-5, 8-10, 13, 14, 16, 18-20, and 23 under 35 U.S.C. § 102(a) as being anticipated by Rantala is affirmed.

The rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Wong, PDR, and Robinson is affirmed.

The rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Morella and Robinson is affirmed.

AFFIRMED

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