No. 99-412V
(Filed: June 27, 2003)

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SONYA and DAVID MORRIS, Parents and Next Friends of TAYLOR MORRIS, a minor,	*	
Petitioners,	*	**Vaccine Compensation Act; Oral Polio Vaccine ("POV"); Transverse Myelitis; Causation**
v.	*	
SECRETARY of the DEPARTMENT of HEALTH and HUMAN SERVICES,	*	
Respondent.	*	
* * * * * * * * * * * * * * * * * * *	*	

Clifford J. Shoemaker, Vienna, VA, petitioner.

Joan E. Coleman, U.S. Department of Justice, Washington, D.C., with whom were Director *Helene M. Goldberg*, for respondent.

O P I N I O N

FIRESTONE, *Judge*.

Pending before the court is petitioners Sonya and David Morris' motion, on behalf of their daughter, Taylor, for review of Special Master Millman's December 18, 2002 decision dismissing their petition for compensation under the National Vaccine Injury

Compensation Act, 42 U.S.C. § 300 aa-10–aa-23 ("Vaccine Act" or "Act"). Petitioners argue that the Special Master erred when she found that the vaccine did not cause Taylor's transverse myelitis ("TM").[1] Defendant Secretary of Health and Human Services ("government") argues in response that the Special Master's decision, finding that the vaccine did not cause Taylor's TM, should be upheld. For the reasons that follow, the decision of the Special Master is hereby **AFFIRMED**.

BACKGROUND

A. Facts

1. Medical Records

The facts from Taylor Morris' medical records that are relevant to this motion are as follows. Taylor Morris was born on March 10, 1996. On July 12, 1996, at the age of four months, Taylor received her second oral polio vaccine ("OPV").[2]

On August 8, 1996, less than thirty days after Taylor received the second OPV, Mr. and Mrs. Morris took Taylor to Dr. L. E. Nickerson's office with complaints of respiratory distress and lethargy. According to Dr. Nickerson's records, Taylor presented with respiratory distress, tachypnea, lethargy and a 101° fever. The physician assistant

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[1] TM is "inflammation of the spinal cord . . . in which the functional effect of the lesions spans the width of the entire cord at a given level." Dorland's Illustrated Medical Dictionary 1165-66 (29th ed. 2000).

[2] Taylor received the OPV together with the diphtheria-pertussis-tetanus vaccine and the haemophiles influenza type b vaccine. She received the first set of all three vaccines on May 14, 1996 with no reported reaction.

noted that Taylor was "lethargic but alert and responsive, perfusing without difficulty, and sucking a bottle well." Morris, 2002 WL 31965739, at *2. Taylor's neurological examination was normal. Pet'rs Exhibit 6 at 45. Dr. Nickerson recorded that Taylor's parents indicated that Taylor did not have any "nausea, vomiting, diarrhea, rash, mental status changes, or signs or symptoms consistent with a more systemic type of toxicity." Morris, 2002 WL 31965739, at *2. The treating physician opined that Taylor had a reactive airway disease that was exacerbated by the air trapping shown on Taylor's chest x-ray. Id. at *3.

Taylor was admitted to Rowan Regional Medical Center on August 8, 1996 with symptoms including air trapping, rapid respiration, sudden onset of lethargy, and expiratory wheeze. On August 10, Taylor began to show neurological symptoms. The examining physician noted that Taylor's right pupil was more dilated than her left and that she did not grasp well. She also had flaccidity in her left upper and lower extremities, which was more pronounced in the lower portion. Her cerebrospinal fluid was tested at both twenty-four and forty-eight hours after admittance, both samples were negative. A chest x-ray showed mild hyperinflation of her lungs with air trapping, and a CT scan of her brain on August 11, 1996 showed a slight prominence of her ventricles without acute process.

Taylor was initially treated with steroids and antihistamine decongestants but without improvement. Taylor's breathing improved after she was placed in a croup tent

and given medications. After Taylor's respiratory problems improved, concern switched to addressing Taylor's neurological symptoms. The hospital records describe Taylor's diagnosis upon discharge as "transverse myelitis with neurologic sequelae." Pet'rs Exhibit 6 at 43. Her secondary diagnosis was "mild reactive airway disease with air trapping." Id.

On August 12, 1996, Taylor was transferred to the Carolinas Medical Center ("Carolinas") in Charlotte, North Carolina in order to deal with Taylor's neurological symptoms. Her left pupil was slightly smaller than her right, but both were reactive. She had "mild facial droop, and decreased use of her left arm." Morris, 2002 WL 31965739, at *4. Once again, both a spinal tap and a CT scan came back negative, however, a MRI showed a swollen cervical cord suggesting TM.

Dr. Paul A. Knowles, a consulting pediatric neurologist, recorded that Taylor's lungs were clear, but that she had a flaccid left arm with an asymmetric face. He wrote that her lower extremities moved symmetrically but that there was a slight decrease in tone bilaterally. He listed Horner's syndrome[3] with brachial plexopathy as a possible cause of Taylor's symptoms. After ordering MRIs of her brain and cervical spine, Dr. Knowles wrote to Dr. Nickerson that Taylor's enlarged cervical cord was consistent with

[3] Horner's syndrome is the "sinking of the eyeball, ptosis of the upper eyelid, slight elevation of the lower lid, constriction of the pupil, narrowing of the palpebral fissure, and anhidross and flushing of the affected side of the face; caused by a brain stem lesion on the ipsilateral side that interrupts descending sympathetic nerves . . . ." Dorland's Illustrated Medical Dictionary 1757 (29th ed. 2000).

TM.[4] Taylor was discharged from the hospital on August 15, 1996 and began to receive physical and occupational therapy for her condition.

On August 7, 1998, a physical therapist worked with Taylor at Shriners Hospital. The physical therapist's record, of which only one page was filed with the Special Master's office, generally describes Taylor's medical history. The record does note that, following Taylor's diagnosis of TM, her developmental milestones were delayed, and that she had frequent urinary tract infections.

Dr. L. Andrew Koman provided a history on August 25, 2000 similar to those that had been previously recorded. Dr. Koman believed that Taylor's TM was localized to her upper lumbar region, a diagnosis based simply on her history and not on films or lumbar puncture results. Dr. Cesar C. Santos and his resident Dr. Tarek A. Kadrie, also examined Taylor on August 25th. Those notes state that Taylor's hips had decreased abduction to 35° and that the tone in her lower extremities was markedly increased.

Taylor's MRI taken on August 30, 2000 was normal. On September 1, 2000, Taylor had a radiologic test on her pelvis that showed widening at her lower lumbar and sacral vertebrae, findings consistent with myelomeningocele.[5]

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[4] Later Mrs. Morris, Taylor's mother, stated that Dr. Knowles had indicated that the OPV was a possible cause of Taylor's condition. Transcript ("Tr.") at 53-54.

[5] Myelomeningocele is a "hernial protrusion of the cord and its meninges through a defect in the vertebral arch (spina bifida)." Dorland's Illustrated Medical Dictionary 1167 (29th ed. 2000).

Petitioners filed Rowan Medical Center's interpretation of Taylor's CT scan dated August 11, 1996 and Wake Forest University Baptist Medical Center's interpretation of Taylor's August 30, 2000 MRI of her lumbar spine. The defendant's expert, Dr. Gerald V. Raymond, filed a supplemental report on April 16, 2002, in which he references an MRI, magnetic resonance angiography and cervical cord examination from August 12, 1996 and a lumbosacral MRI from August 30, 2000.

2. The Evidentiary Hearing

On June 28, 1999, the petitioners filed a petition for compensation under the Vaccine Act, as parents and next friends of their daughter, Taylor, claiming that her TM and subsequent developmental delays were caused by the OPV administered on July 12, 1996. Petitioners alleged that Taylor experienced TM, a condition that is not a Table Injury under the Vaccine Act. Petitioners further assert that there is a logical sequence of cause and effect showing that the OPV was the reason for the TM. In opposition, the government contended that the medical documentation in the case failed to support the petitioners' claim.

On November 29, 2001, the Special Master held an evidentiary hearing on the claim. Testifying for the petitioners, the Special Master heard from David H. Morris, Taylor's father; Sonya Morris, Taylor's mother; and Dr. Carlo Tornatore, an adult neurologist with interests in viral molecular pathogenesis. Testifying for the government was Dr. Gerald V. Raymond, a pediatric neurologist with experience in developmental neuro-pathology.

During the evidentiary hearing, Mr. Morris testified that on August 8, 1996, Taylor was in good health. He dropped off Taylor at the babysitter's house between 7:30 and 8:00 in the morning. At sometime between 1:00 and 2:00 that afternoon, Mr. Morris received a page from the babysitter that Taylor was limp and breathing quickly. Mr. Morris took Taylor to see Dr. Nickerson and his physician assistant, Jeff Taylor. Mr. Morris denied that Taylor had any coughing, congestion or fever prior to that day.

Mr. Morris testified that since Taylor's diagnosis of TM, Taylor's arm has gotten better, but she drags her left leg more than her right leg. He stated that her heel cords and hamstrings are still tight and that she receives physical therapy. Mr. Morris also stated that Taylor has a spastic bladder and is catheterized four times a day.

Mrs. Morris, Taylor's mother, testified next. She confirmed her husband's story of the events on August 8, 1996, though she was not present that morning. Like her husband, Mrs. Morris could not recall Taylor having any fever, congestion, cough or runny nose on August 8, 1996. Mrs. Morris did recall Dr. Knowles stating that the OPV was a possible cause of Taylor's condition. Tr. at 53-54.

Next, Dr. Tornatore, the petitioners' expert testified. He stated that he believed that Taylor's TM was caused by the second OPV she had received in July. Dr. Tornatore admitted that he had never seen an acute polio case but had seen patients with past polio and post-polio syndrome. Dr. Tornatore testified that he had examined Taylor and that he found her legs to be strong but stiff. He noted that her left pupil was slightly smaller than

her right, and he testified that Taylor had a lesion on the C2-C3 levels of her spine, accompanied by weakness in the upper extremities.

Dr. Tonatore testified that in his opinion Taylor received an OPV with one virus that was not attenuated or safe for use as a vaccine and that the unattenuated virus invaded Taylor's spinal cord, causing TM. Tr. at 94 ("[F]or some reason that particular lot [of the second OPV] or whatever, there was one particular virus in there that somehow managed to not be attenuated, got in to the spinal cord and got into the right area, now didn't cause polio. But now she had an immune response, and immediately the immune system came in and tried to eradicate it and cause [sic] the transverse myeltits."). Dr. Tornatore said that the twenty-seven day delay between receipt of the OPV and onset was probably caused by the virus incubating and replicating in the digestive tract, a process that was slower because the virus was not at full force. He concluded that Taylor had a polio infection, but not polio. The breathing problems Taylor experienced, Dr. Tornatore determined, were caused by the TM which affected the area of Taylor's spinal cord that "drives ventilation. And if you have a loss of function there, then you're going to have respiratory problems . . . . And Taylor is a perfect example of somebody whose spinal cord was injured and then started having some respiratory problems." Tr. at 103. Dr. Tornatore denied that a respiratory viral illness had caused Taylor's TM. Dr. Tornatore noted that no virus was identified and that Taylor did not have the usual symptoms associated with a respiratory virus, such as a runny nose. According to Dr. Tornatore, all

of Taylor's initial symptoms were consistent with the OPV having caused the TM. Dr. Tornatore noted that Taylor's neurological symptoms were properly treated with the steroids she received when she entered the hospital and that this treatment may have "helped her get over that phase [of the TM] a little bit quicker." Tr. at 169. See also Tr. at 198. In support of their petition, the petitioners submitted an article that described a possible connection between polio and TM.[6]

The government presented the testimony of Dr. Raymond. Dr. Raymond testified that he has seen patients with polio, and at least one case of TM per year, and a total of sixteen to twenty TM cases over his career. Dr. Raymond testified that in his opinion, the OPV did not cause Taylor's condition. Dr. Raymond testified that contemporaneous medical records indicated that Taylor had first presented with a viral illness and that the TM followed. He testified that Taylor's initial respiratory problems were not caused by the TM, as Dr. Tornatore testified, because Taylor's neurological symptoms were not evident until several days after her respiratory problems were diagnosed.

Dr. Raymond concluded that Taylor had a viral illness, which led to reactive airway disease and TM. He also stated that TM has many causes, including viral, bacterial, protozoan, inflammatory agents, multiple sclerosis, and lupus, and that the OPV

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[6] K.M. Foley and H.R. Beresford, "Acute Poliomyelitis Beginning as Transverse Myelitis," 30 Arch Neruol 182-83 (1974). The petitioners also submitted R.W. Price and F. Plum, "Poliomyeltis," Infections of the Nervous System, eds. P.J. Vinken and G.W. Bruyn (1978), which generally described poliomyelitis, including the similarities between poliomyelitis and TM.

has never been associated with TM. He dismissed the articles presented by the plaintiff by stating that he understood the cases of TM after exposure to the OPV to be coincidental and not causal. Tr. at 221 ("My understanding is that the one or two cases that have been reported in the literature are felt to be coincidental and that there's never been a clear causal relationship between oral polio vaccine and transverse myelitis. There has [sic] been cases of oral polio vaccine resulting in polio, but they've all looked like polio."). Dr. Raymond stated that the fact that no one could pinpoint the exact viral cause of Taylor's TM was not surprising because doctors do a poor job looking for a cause of TM, testing only for bacteria and not viruses. Tr. at 213-14 ("[There] was very little done to actually look for the etiologic agent here. . . . [Y]es, they did look for bacterial . . . . They did not look for viral, and they certainly didn't look for polio."). He stated that Taylor's record of reactive airway disease, fever, possible pneumonia, but no immediate neurological symptoms, are consistent with other cases seen by Dr. Raymond of TM secondary to viruses. Tr. at 218 ("I think [the symptoms are] consistent with the courses that have been seen in other cases of acute transverse myelitis secondary to viruses."). Dr. Raymond also testified that the petitioner's expert's unattenuated virus theory is unfounded because Taylor's first OPV would have provided her with some immunity. Tr. at 201-02 ("[T]he purpose of oral polio . . . is the fact that you get mucosal immunity as well as circulating immunity. . . . There will . . . be the change in mucosal immunity to prevent the uptake. Now there probably is some uptake of the virus but it is attenuated,

and that's going to be decreased. So the fact that she has received one oral polio virus already probably means that she already has some circulating immunity.").

The government filed various articles that discussed diseases of the spinal cord, the linkage of TM to viral infection, the link of other vaccines to TM, and that the only definite neurologic complication from the OPV is paralytic poliomyelitis or polio.[7]

B. The Special Master's Decision

On December 18, 2002, the Special Master issued a decision denying the petitioners' request for compensation. Specifically, the Special Master found Dr. Raymond's testimony more credible and that "Taylor's respiratory infection, signifying a viral infection, is the cause of her TM, and not her OPV." Morris, 2002 WL 31965739, at *18. The Special Master concluded that the plaintiffs failed to show that the OPV "was a substantial factor in bringing about her injury." Id. at *14 (citing Shyface v. Sec'y, HHS, 165 F.3d 1344 (Fed. Cir. 1999)). The Special Master accepted Dr. Raymond's explanation that "Taylor had a respiratory infection preceding the onset of her TM because that is the conclusion of her treating doctors." Id. at *18.

[7] R.D. Adams, M. Victor, and A.H. Ropper, eds. "Diseases of the Spinal Cord," Principles of Neurology 6th ed. (1997); K.L. Tyler, et al., "Unusual Viral Causes of Transverse Myelitis: Hepatitis A Virus and Cytomegalovirus," Neurology 36(6) 855-58 (1986); G.M. Fenichel, "Neurologic Complications of Immunization," in Pediatric Neurology, Principles and Practice K.F. Swaiman, ed. (1994); F. Trevisani, "Transverse Myelitis Following Hepatitis B Vaccination," J Hepatol 19(2) 317-18 (1993); E. Whittle, et al., "Transverse Myelitis after Diphtheria, Tetanus, and Polio Immunisation," in Br. Med. J. 1(607) 1450 (1997).

The Special Master explained that to the extent there is a conflict between the medical records and memory of Taylor's parents regarding her health on August 8, 1996, the medical records must be given greater weight. Therefore, the Special Master, "[w]hen faced with a conflict between the parent's testimony and the history and observations of the treating medical staff," chose the latter as "more credible." Id. at *16. After accepting the value of the medical records, the Special Master concluded, based on Dr. Raymond's opinion, that Taylor had a respiratory illness which then led to her TM. The Special Master noted that the medical records demonstrated that Taylor's TM did not develop all at once, as Dr. Tornatore opined, because Taylor's initial neurological examination was normal. The Special Master noted that it took several days for Taylor's neurological symptoms to become apparent.

The Special Master further noted that Dr. Raymond's opinion that viral infections are the common cause of TM was well-supported by the medical literature. In addition, the Special Master questioned Dr. Tornatore's assumption that Taylor had been exposed to a virulent OPV. As the Special Master stated, "[o]ne would expect more people than Taylor to have contracted TM if there were virulent strains of OPV in use . . . ." Id. at *17.[8]

[8] The Special Master noted that although she had received a supplemental report from Dr. Raymond, she did not consider the report. "[The petitioners] never filed interpretations of [Taylor's] brain MRI, magnetic resonance angiography and cervical cord MRI done August 12, 1996. Thus, the undersigned has not had any opportunity to compare the treating doctors' interpretations with the interpretations of Dr. Raymond . . . and Dr. Tornatore." Morris, 2002 WL 31965739, at *15.

The Special Master concluded that "Taylor's respiratory infection, signifying a viral infection, is the cause of her TM, not her OPV." [9] On this basis, the Special Master determined that the petitions did not prevail on their allegation that OPV caused Taylor's TM, and thus, she dismissed the petition with prejudice.

C. Petitioner's Motion for Review

On January 17, 2003, petitioners filed a timely motion for review pursuant to Appendix J of the Rules of the United States Court of Federal Claims Rule 23, requesting this court to set aside the Special Master's decision and remand the case for further consideration. Petitioners raise four issues in their petition: (1) the Special Master failed to consider the impact of steroids on Taylor's initial condition; (2) the Special Master found an alternate cause of Taylor's TM without meeting the alternate cause burden of proof; (3) the Special Master erred in performing medical research and making medical conclusions on topics upon which the experts did not comment; and (4) the Special Master acted improperly in failing to give petitioners time to respond to Dr. Raymond's final report.

[9] Although the Special Master concurred with Dr. Raymond's opinion, she discussed at the outset of her decision that she believed that Taylor's condition is due to myelomenigocele. However, the Special Master stated that "this is pure speculation on the undersigned's part since neither expert offered an opinion about this. . . . Therefore, the court will analyze this case solely on the allegations petitioners have made and the testimony Dr. Tornatore gave, compared with the medical records, the testimony of Dr. Raymond, and the medical literature." Morris, 2002 WL 31965739, at *15.

DISCUSSION

A. Standard of Review

The Vaccine Act states that:

> [T]he United States Court of Federal Claims shall have jurisdiction to undertake a review of the record of the proceedings [before the Special Master] and may thereafter –
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> (A) uphold the findings of fact and conclusions of law of the special master and sustain the special master's decision,
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> (B) set aside any findings of fact or conclusions of law of the special master found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law and issue its own findings of fact and conclusions of law, or
>
> (C) remand the petition to the special master for further action in accordance with the court's discretion.

42 U.S.C. § 300aa-12(e)(2) (1994 and Supp. 1997).

The court in Carraggio v. Sec'y, HHS, 38 Fed. Cl. 211 (1997), explained the three distinct levels of review in a Vaccine Act case:

> Fact findings are reviewed under the arbitrary and capricious standard. Legal questions are reviewed under the "not in accordance with law" standard, and discretionary rulings are reviewed under the abuse of discretion standard.

Id. at 217 (quoting from Perreira v. Sec'y, HHS, 27 Fed. Cl. 29, 32 (1992), aff'd, 33 F.3d 1375 (Fed. Cir. 1994)). See also 42 U.S.C. § 300aa-12(e)(2)(B).

Under these well-settled standards, this court will not reverse the decision of a Special Master unless the Special Master failed to consider relevant evidence, drew implausible inferences, or failed to state a rational basis for the decision. See Gurr v. Sec'y, HHS, 37 Fed. Cl. 314, 317 (1997) (citing Hines v. Sec'y, HHS, 940 F.2d 1518, 1528 (Fed. Cir. 1991)).

B. Burden of Proof

Under the Vaccine Act, petitioners have the burden of demonstrating by a preponderance of the evidence that Taylor's injury was caused by her OPV. See 42 U.S.C. § 300aa-13(a)(1)(A). Petitioners may do this by proving that the child suffered an injury listed on the Table within the Table's prescribed time periods. See id. at § 300aa-14. Petitioners may also do this by proving causation in fact if the injury does not meet the table requirements as set forth in 42 U.S.C. § 300aa-11(c)(1)(ii)(I) and (II).[10] Causation in fact obligates the petitioner to prove, by a preponderance of the evidence, that the vaccine caused the injury. There is no presumption of injury in causation cases. In such cases, scientific certainty is not required, but "a mere temporal association between the injury and the vaccination is not enough." McCarren v. United States, 40 Fed. Cl. 142, 147 (1997) (citing Bunting v. Sec'y, HHS, 931 F.2d 867, 873 (Fed. Cir. 1991)).

C. The Special Master's Decision is Supported

1. The Special Master was not arbitrary or capricious in determining that the cause of Taylor's TM was a respiratory virus

At the heart of petitioners' motion is their contention that the Special Master acted

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[10] 42 U.S.C. § 300aa-11(c)(1)(ii)(I) and (II) provides that compensation may be eligible for a person who:

> (ii)(I) sustained, or had significantly aggravated, any illness, disability, injury, or condition not set forth in the Vaccine Injury Table but which was caused by a vaccine referred to in subparagraph (A), or (II) sustained, or had significantly aggravated, any illness, disability, injury, or condition set forth in the Vaccine Injury Table the first symptom or manifestation of the onset or significant aggravation of which did not occur within the time period set forth in the Table but which was caused by a vaccine referred to in subparagraph (A) . . . .

arbitrarily and capriciously when she determined that a viral illness led to the onset of Taylor's TM instead of her second OPV. The petitioners contend that the Special Master misconstrued the statements of Dr. Tornatore and that she failed to recognize the significance of Taylor's parents' testimony concerning Taylor's health on the morning of August 8, 1996. According to the petitioners all of Taylor's symptoms are explainable as the sudden onset of TM, rather than some unidentified virus. Petitioners argue that if Taylor had an antecedent respiratory virus she would have had more cold-like symptoms, such as a runny nose and congestion. These symptoms were not present. Moreover, petitioners allege that respiratory distress is a neurological symptom. In this connection, the petitioners also contend that the Special Master erred when she failed to consider the impact of the steroids Taylor received when she was first admitted to the hospital. Petitioners argue that the steroids given to Taylor eased or masked the symptoms of her TM and therefore her more obvious neurological symptoms did not appear until she was taken off of the steroids.

The government argues that the Special Master properly considered all of the information provided, and gave proper weight to the government's expert and the medical literature. The government contends that the evidence supported a finding that Taylor had a respiratory virus before her TM. The medical literature indicates that respiratory viruses have been causally linked to TM. Further, the government contends that the Special Master correctly rejected petitioners' expert opinion that a virulent OPV caused Taylor's TM. The government argues that the Special Master correctly concluded that

Dr. Tornatore's testimony in this regard was "too theoretical to be given any weight." Morris, 2002 WL 31965739, at *17.

The court agrees with the government that the Special Master had sufficient evidence to find that petitioners' had failed to sustain their burden of establishing that Taylor's OPV had caused Taylor's TM. The contemporaneous medical record created by Taylor's treating doctors supports the Special Master's conclusion that Taylor's TM did not appear until after Taylor showed serious respiratory symptoms. The medical record shows that Taylor had a fever and upper respiratory symptoms at the time of her admission to Rowan Regional Medical Center, and that the onset of TM did not appear until after Taylor's hospital admission. Moreover, the Special Master cannot be faulted for relying upon Dr. Raymond's testimony that TM ordinarily follows a virus, and that he was not aware from his own experience and the medical literature of any causal connection between receipt of an OPV and TM.

The fact that the Special Master did not consider whether the steroid treatment Taylor received masked her TM does not alter this result. A review of the transcript does not suggest that Taylor's TM symptoms were masked. Rather, Dr. Tornatore testified that steriods may have improved her condition. Dr. Tornatore explained that Taylor's respiratory problems were, in fact, symptoms of her TM. The Special Master rejected that analysis, concluding that the medical records did not reveal any neurological symptoms until a few days after Taylor's respiratory symptoms were brought under control. She concluded that this demonstrated that a virus was more likely responsible for

Taylor's TM than the OPV. The fact that no virus was identified does not alter this result. Dr. Raymond testified that doctors rarely test for viruses:

> Special Master: All right. We know [the attenuated polio virus is] there. . . . And you're saying that more likely than that possibility, something we know about, is some virus that either was never tested for or never observed or never found, is that correct?
>
> Dr. Raymond: Never looked for. I mean, it's hard to say never found when you don't look for something.

Tr. at 227-28.

Moreover, the Special Master's reasons for rejecting Dr. Tornatore's opinion are supported by the record. For example, Dr. Tornatore's contention that Taylor's OPV must have contained a virulent polio strain was not supported by any factual evidence. The Special Master noted that there were no other cases like Taylor's and that one would expect to see other similar cases if a virulent strain of OPV had been used. Morris, 2002 WL 31965739, at *17. In such circumstances, the Special Master did not err in concluding that Dr. Tornatore's assumption regarding the nature of Taylor's OPV was "too theoretical to be given any weight." Id. Similarly, the Special Master did not err in not giving the medical literature provided by petitioners much weight. The literature showed that in the 1950s, TM had occurred in one case where a boy had been exposed to polio. There was no evidence to show that TM was caused by the polio vaccine. The government, on the other hand, had medical literature that showed that viral infections are a likely cause of TM and that the only known risk from OPV is polio.

In sum, the Special Master's decision is supported by the testimony of Dr. Raymond, Taylor's medical records and the medical literature. In such circumstances, the petitioners have not established a basis for reversing the Special Master's decision.

2. The Special Master did not err by performing her own medical research

The petitioners claim that the Special Master's decision should be reversed because she performed her own research about myelomeningocele, a condition that was not a part of the experts' testimonies. The petitioners argue that "it is improper for a Special Master to perform her own medical research and not allow the parties with the opportunity to even comment upon what she has discovered on the Internet or in an illustrated medical dictionary." Pet'rs Mot. for Review 5. The petitioners claim that in doing such research, the Special Master improperly assumed the role of medical expert.

The government argues in response that although the Special Master did discuss myelomeningocele as a possible cause of Taylor's condition, she specifically acknowledged that the experts had not identified myelomeningocele as a cause and proceeded to analyze the case solely on the arguments of the petitioners, the experts' testimony, the medical records, and the medical literature. Morris, 2002 WL 31965739, at *15. Thus, the government argues that the Special Master's discussion of myelomeningocele is "simply dicta." Resp't Mem. in Resp. to Pet'rs Mot. for Review 14.

The court agrees with the government that the Special Master's discussion of myelomeningocele does not undermine her decision. The Special Master stated:

> But [discussing the myelomingocele] is pure speculation on the undersigned's part since neither expert offered an opinion about this. . . . Therefore, the court will analyze this case solely on the allegations petitioners have made and the testimony Dr. Tornatore gave, compared with the medical records, the testimony of Dr. Raymond, and the medical literature.

Morris, 2002 WL 31965739, at *15.

Where, as here, the Special Master adequately substantiated her conclusion with the information in the record, performance of outside research by the Special Master is not an abuse of discretion. The Special Master stated clearly that her decision would not consider the possibility of myelomingocele as cause of Taylor's condition. As such, her speculation regarding myelomingocele as a possible cause of Taylor's condition, does not undermine her decision.

3. The Special Master did not err in not giving Petitioners time to respond to Dr. Raymond's final report

The petitioners argue that the Special Master erred in not giving Dr. Tornatore, the chance to respond to Dr. Raymond's final report in 2002. Petitioners argue that the Special Master released her decision prematurely, which denied the petitioners the opportunity to respond to Dr. Raymond's report and the Special Master's medical research.

The government argues in response that issuing the decision before the Special Master received the petitioners' response was not an error. The government contends that the Special Master provided the petitioners ample time to address Dr. Raymond's supplemental support. The government alternatively argues that if an error occurred, it

was harmless because the Special Master did not base her conclusions on Dr. Raymond's supplemental report.

Again, the court agrees with the government. The Special Master had broad procedural discretion in how to conduct this case. Burns v. Sec'y, HHS, 3 F.3d 415, 417 (Fed. Cir. 1993) ("[a] special master . . . has wide discretion in conducting the proceedings in a case."); Sword v. Sec'y, HHS, 44 Fed. Cl. 183, 190 (1999). Where, as here, it is clear that the Special Master relied upon the expert testimony she received at the hearing to resolve the petition, and did not consider Dr. Raymond's supplemental report, she did not abuse her discretion by not waiting for a response from petitioners before issuing her decision. Moreover, petitioners have failed to show how a response from Dr. Tornatore would be material to the outcome of the petition. The Special Master stated that she did not consider Dr. Raymond's second report. It is therefore difficult to imagine how a response would have altered the outcome of the petition. See Burns, 3 F.3d at 417 ("Petitioner asserts that the special master erred by not considering all the evidence[, especially] the special master's decision not to hold an additional evidentiary hearing to consider the testimony of her medical expert. A special master . . . has wide discretion in conducting the proceedings in a case. . . . Accordingly, the special master did not err . . . ."); Hines v. Sec'y, HHS, 940 F.2d 1518, 1526 (Fed. Cir. 1991) ("Even if it was error, it was harmless because . . . the special master's decision was based on a number of factors and she has not shown that reliance on the judicially noticed incubation period . . . was likely critical to the result."); Cox v. Sec'y, HHS, 30 Fed. Cl. 136, 143

(1993) ("[W]hile the special master abused his discretion by striking [the expert's] affidavit from the record, it was harmless error to do so" because the court found that the expert report "deserved little or no weight in light of the entire record.").

CONCLUSION

For the foregoing reasons, the court **DENIES** petitioners' motion for review and **AFFIRMS** the December 18, 2002 decision of the Special Master. The clerk of the court is directed to enter judgment accordingly.

NANCY B. FIRESTONE
Judge