Shulman v Behrman
2015 NY Slip Op 32205(U)
November 17, 2015
Supreme Court, New York County
Docket Number: 805306-2012
Judge: George J. Silver

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK: PART 10

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BRETT SHULMAN,

Plaintiff,

-against-

DAVID BEHRMAN, D.M.D., MARTHA KUTKO, M.D. and NEW YORK PRESBYTERIAN /WEILL CORNELL MEDICAL CENTER,

Defendants.

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Index No. 805306-2012

DECISION/ORDER

Motion Sequence 002

HON. GEORGE J. SILVER, J.S.C.

Recitation, as required by CPLR § 2219 [a], of the papers considered in the review of this motion:

Papers	Numbered
Notice of Motion, Attorney's Affirmation, Physicians' Affirmation and Affidavits & Collective Exhibits Annexed	1-10
Answering Attorney's Affirmation, Physicians' Affirmations and Affidavit & Collective Exhibits Annexed	11-19
Reply Affirmation & Collective Exhibits Annexed	20-21

By notice of motion dated December 23, 2014, defendants David Behrman, D.M.D. (Dr. Behrman), Martha Kutko, M.D. and New York-Presbyterian /Weill Cornell Medical Hospital (NYPH) (collectively defendants) move pursuant to CPLR § 3212 for an order granting them summary judgment dismissing plaintiff Brett Shulman's (plaintiff) complaint, which alleges causes of action for medical malpractice and lack of informed consent. Plaintiff opposes the motion.

Medical Malpractice

In support of the motion to dismiss plaintiff's medical malpractice claim, Dr. Behrman avers that he rendered appropriate care and treatment to plaintiff and did not deviate from good and accepted oral and maxillofacial surgical practice. Specifically, Dr. Behrman contends that on October 7, 2009, plaintiff and his parents consulted with him to begin orthognathic surgery planning to develop a stable and functional occlusion and correction of plaintiff's facial

deformity. At the initial presentation, plaintiff was 6'2" tall, weighed approximately 260 pounds and was in good health. Dr. Behrman claims that plaintiff denied any health problems, other than a possible history of snoring/sleep apnea, including high blood. Dr. Behrman next saw plaintiff on October 28, 2009 and May 14, 2010. The purpose of the May 14, 2010 visit was to review the upcoming surgery and begin the admission preparation. A review of systems and physical examination were normal and, according to Dr. Behrman, plaintiff confirmed that he had no significant past medical history. Plaintiff was evaluated at NYPH on May 19, 2010 and denied any chronic medical conditions or any conditions that suggested the need for further evaluation or preoperative intervention. Blood was collected on May 19, 2010 for laboratory tests.

Plaintiff presented to NYPH for pre-admission testing on May 28, 2010. Dr. Berhman avers that plaintiff denied smoking tobacco and there was nothing documented to suggest that plaintiff had a history of upper respiratory infection. The lab tests of the blood previously collected on May 21, 2010 were reviewed and showed that plaintiff had a white blood cell count of 13.1. Dr. Behrman's opinion is that there was non contraindication to plaintiff undergoing the proposed surgery from an oral and maxillofacial standpoint. Dr. Berhman states that immediately prior to the surgery the anesthesia staff conducted a pre-induction assessment of plaintiff which revealed blood pressure 202/104 mm Hg, pulse rate 120/min and respiratory rate 14 breaths/min. Anesthesia began at 10:58 a.m. The surgery began at 11:40 a.m and concluded at 6:28 p.m. According to Dr. Behrman, the surgery, which he describes as complicated procedure involving the deconstruction and reconstruction of plaintiff's jaw, was uneventful. Post surgery plaintiff was brought to the PACU and then transferred to the pediatric Intensive Care Unit (PICU) accompanied by anesthesia and surgical teams. Plaintiff was nasally intubated, sedated and in stable condition at the time. Plaintiff's jaw was banded shut with rubber bands and the plan was to extubate plaintiff the following morning.

Plaintiff was extubated on June 2, 2010 by the PICU staff. Plaintiff subsequently required bi-level positive airway pressure (BiPap) for hypoventilation resulting in hypercarbia and was taken out of the ruber bands. According to Dr. Behrman, plaintiff continued to be hypertensive on June 4, 2010 and was started on Nifedipine. Dr. Behrman claims that plaintiff's condition was documented to be improving. Plaintiff was able to tolerate time off BiPap mask to walk and sit in a chair. On June 5, 2010 plaintiff was alternating between a simple face mask and BiPap every two hours. Nephrology was consulted and plaintiff was started on Lasix for continued hypertension.

On June 6, 2010 cardiology was consulted for hypertension and hypoxemia and plaintiff was started on Losartan. At this time that it was documented that plaintiff had a history of hypertension and had been evaluated in the Cardiology Clinic at age 15 during which time he underwent a work-up including EKG, echo and renal ultrasound. Dr. Behrman contends that the workup performed by the Cardiology Clinic when plaintiff was 15 was normal. On June 6, 2010 Nephrology evaluated plaintiff for hypertension and recommended that the PICU staff continue with the then current blood pressure management. Plaintiff was orally intubated on June 7, 2010 due to poor saturation overnight. Subsequently, arterial blood gases demonstrated pO2 of 39 and Pulmonology was consulted for acute hypoxemic respiratory failure. A bronchoscopy demonstrated pus in plaintiff's lungs suggestive of an infectious process (pneumonia). Plaintiff was started on broadened antibiotic coverage pending the results of the bronchoalveolar lavage

(BAL) culture, which later grew out Staphylococcus aureus. Plaintiff was paralyzed from June 7, 2010 to June 14, 2010 with cisatracurium. During this period, plaintiff was also sedated with Versed and Fentanyl and developed transient episodes of hypotension. On June 24, 2010 plaintiff was taken to the operating room for an osteotomy by Dr. Behrman and tracheostomy by ENT because the segment alignment was not as desired due to the earlier re-intubation.

Dr. Behrman claims that he was never informed pre-procedure that plaintiff had been worked up years earlier for a blood pressure problem or that plaintiff had previosuly been diagnosed with "white coat blood pressure," a condition where a patient's blood pressure rises in the presence of a physician. Dr. Berhman further opines that in light of plaintiff's history and physical examination findings, plaintiff's elevated white blood cell count of 13.1 was not significant in the absence of any other abnormal clinical findings. According to Dr. Behrman, an elevated white blood cell count, in and of itself, is neither indicative of a preoperative infection nor a contraindication to the proposed surgery.

Dr. Behrman further opines that plaintiff's blood pressure of 203/104 immediately prior to the surgery was not a reason for the surgery not to be performed. While again denying any knowledge of plaintiff's elevated blood pressure, Dr. Behrman contends that the ultimate decision as to whether plaintiff's blood pressure was a contraindication to go forward with the surgery would have to be made the anesthesia staff. Because the anesthesia staff concluded that plaintiff's vital signs and history did not make Dr. Behrman's surgical procedure contraindicated in nature, Dr. Behrman opines that it was appropriate to perform the surgery on the scheduled date.

Dr. Behrman also contends that plaintiff's morbid obesity was not a surgical reason to cancel the procedure. Dr. Behrman again claims that plaintiff was cleared for surgery by the anesthesia staff who concluded that plaintiff's weight was not a reason not to go forward. Dr. Behrman further argues that plaintiff's complicated airway architecture, including plaintiff's documented Mallampati IV oral exam and limited oral opening and redundant pharyngeal soft tissue were not reasons to cancel surgery. According to Dr. Behrman, a Mallampati IV airway and redundant pharyngeal soft tissue are not unexpected in someone with a retrusive maxilla and prognathic mandible. Dr. Behrman also contends that plaintiff's limited oral opening was likely the result of multiple factors, including plaintiff's obesity and facial skeletal deformity and that his opening was sufficient to permit his ongoing orthodontic care the proposed surgery.

Finally, Dr. Behrman claims plaintiff's allegation that the surgical procedure was a setback procedure which could have had an adverse imact of the airway and airway obstructive complications is without merit. According to Dr. Behrman, the mandibular setback performed on plaintiff was coordinated with a maxillary advancement with transverse widening and that none of these movements were remotely excessive in terms of routine oral surgical care and were coordinated to create a more normal facial skeletal anatomy. Dr. Behrman claims that plaintiff's limited ability to open his mouth preoperatively was understandable given plaintiff's facial skeletal deformity and did not warrant canceling the procedure since plaintiff's simple mouth opening of more than 30 millimeters was well within the accepted range for someone of his weight and skeletal deformity. Dr. Behrman also contends that as a dentist he could not have reasonably foreseen that plaintiff would develop severe respiratory issues and thus there was no reason for him to advise the PACU and PICU staffs that plaintiff was at increased risk of

respiratory distress. Dr. Behrman contends that such determinations are made by the anesthesia staff.

In further support of the motion, defendants submit an affirmation from Dr. John DiCapua, an anesthesiologist. Dr. DiCapua opines that the pre-operative evaluations, intra-operative anesthetics and immediate post-operative care by Dr. Behrman, NYPH and non-party Dr. Anup Pamnani were consistent with good and accepted standards of medical practice and that nothing Dr. Behrman or NYPH did or failed to do in the perioperative time caused plaintiff's alleged injuries. According to Dr. DiCapua, since plaintiff denied any history of heart or lung problems, including any history of hypertension or obstructive sleep apnea, the only known and reported risk plaintiff had for the surgery was his weight. Dr. DiCapua states in his affirmation that two weeks prior to the June 1, 2010 operation plaintiff had a white blood cell count of 13.1 and on the day of the surgery, plaintiff's blood pressure was 201/104 mm Hg, pulse rate 120/min and respiratory rate of 14 breaths/min. Plaintiff's physical examination was normal. Plaintiff had a Mallampati 4 class airway meaning that only the hard palate was visible on exam, an oral opening of 2-3 centimeters, high omental distance greater than 3 fingers and ASA 2 classification meaning he was a patient with mild systemic disease. At 11:01 a.m., one minute before anesthesia induction, plaintiff's vital signs were reassessed and his blood pressure was 160/76 mm Hg and his pulse was 76/min without medication. During the surgical procedure, general anesthesia was utilized together with fiberoptic endotracheal intubation, which according to Dr. DiCapua is common during oral and maxillofacial surgery, for airway management.

Dr. DiCapua opines that in light of plaintiff's reported history and the physical examination findings, plaintiff's white blood cell count of 13.1 on May 19, 2010 was not significant in the absence of abnormal clinical findings. Dr. DiCapua also opines that the isolated blood pressure of 203/104 mm Hg and pulse rate120/min on the morning of the surgery were not significant, that there were no indications to order or perform additional tests on or before June 1, 2010 and that plaintiff was properly cleared for surgery. According to Dr. DiCapua, airway problems, including difficult intubation and failure to provide adequate ventilation leading to hypoxia are the major problems that lead to morbidity and mortality during surgery and the administration of anesthesia. DiCapua claims that neither of these complication occurred in this case and since plaintiff was nasally intubated, the fact that plaintiff had a complicated airway architecture, including a Mallampati 4 class airway, is of no significance with respect to the perioperative treatment rendered by Dr. Behrman and NYPH. Dr. DiCapau claims that the post-operative pulmonary complications plaintiff experienced were not caused by Dr. Behrman or NYPH's anesthesia staff. Rather, Dr. DiCapua claims that despite good and appropriate medical care, post operative complications requiring prolonged mechanical ventilation and hospital stays can and do arise in patients who have undergone major surgery.

Defendants next submit an affirmation from Dr. Edward Conway, a pediatric critical care medicine specialist who opines that the care rendered post-operatively by the PICU was consistent with accepted standards of medical practice and that nothing Dr. Behrman, NYPH or Dr. Kuko did or failed to do caused plaintiff's alleged injuries, including his spinal and brain infarctions. According to Dr. Conway, plaintif suffered post-operative pulmonary complications that defendants could not have prevented based upon plaintiff's history and physical examination before the June 1, 2010 surgery. First, Dr. Conway opines that the standard of care did not

require that plaintiff be transferred to an adult intensive care unit following the surgery because it is not uncommon to treat patients in the PICU setting who range in age from birth to 21 years of age, regardless of the patient's height or weight. Second, like Dr. DiCapua, Dr. Conway opines that despite proper medical care, post-operative pulmonary complications can and do occur more frequently in obese patients following major surgery, thereby leading to the need for prolonged mechanical ventilation and hospital stay.

Dr. Conway also opines that defendants properly placed the endotracheal tube pre-operatively and that it is not uncommon for an endotracheal tube to move up or down due to patient movement. According to Dr. Conway, imagining reports in this case confirm that the endotrscheal tube was demonstrated in an appropriate location at all times. According to Dr. Conway, attempts to advance the endotracheal tube were not successful and were limited by the angle of the RAE tube. Dr. Conway claims that plaintiff was able to generate acceptable tidal volumes which indicates that plaintiff was being adequately oxygenated and ventilated, thereby rendering any claims regarding the endotracheal tube mertiless. Dr. Conway also claims that because the nasogastric tube was not used for feeding and there is no evidence that aspiration occurred, the nasogastric tube did not contribute to plaintiff's post-operative complications.

Dr. Conway further contends that defendants decision to extubate plaintiff on June 2, 2010 was appropriate. According to Dr. Conway, the indication for an artificial airway, i.e., airway protection during surgery/administration of anesthesia no longer existed, there was not significant tracheal edema as demonstrated by the presence cuff leak and plaintiff had been weaned from sedation and mechanical ventilation and demonstrated stable arterial blood gases. Further, Dr. Conway contends that plaintiff's moderately elevated arterial blood pressures and tachycardia were not absolute contraindications to extubation.

Dr. Conway further opines that Dr. Kutko and the NYPH staff exercised their clinical judgment on June 6, 2010 and the early hours of June 7, 2010 in managing plaintiff's intermittent periods of respiratory instability with BiPap, suctioning, diuresis, bronchodilator therapy, pulmonary toilet, chest physiotherapy and deep breathing exercises in an appropriate attempt to prevent the need for re-intubation. Dr. Conway contends that re-intubation is not a simple procedure in patients following oral and maxillofacial surgery and there is a greater known morbidity and mortality in endotracheal intubation in obese patients. Dr. Conway also contends that it was appropriate for Dr. Kutko and the NYPH staff to use less invasive modalities because plaintiff's airway was not obstructed and plaintiff did not have acute aspiration. Dr. Conway opines that plaintiff did not require emergent intubation of June 7, 2010 between 3:00 a.m. and 7:00 a.m. because his PO2 levels ranged from 84-88 mm Hg during that time period.

Dr. Conway further opines that defendants timely diagnosed and treated plaintiff's pneumonia. Dr. Conway contends that pneumonia and atelectasis can be very difficult to differentiate on x-ray and that plaintiff's lungs were documented to be clear to auscultation on June 7, 2010. Dr. Conway also claims that plaintiff's elevated white blood cell counts following the surgery were most likely due to the stress of undergoing a major surgery and the steroids plaintiff had received. According to Dr. Conway, plaintiff was also appropriately given peri-operative anitbiotics following the surgery and broad-based antibiotics on June 7, 2010 pending the results of culture ans sensitivity and that upon receipt of the results, plaintiff's antibiotic regimen was properly narrowed or tailored to treat MSSA.

Dr. Conay also opines that plaintiff received appropriate sedative therapy following re-intubation on June 7, 2010, that infectious disease was appropriately and timely consulted on June 12, 2010. While Dr. Conway contends that it is within a critical care specialist's scope of practice to diagnose and manage pneumonia in the ICU setting, it was reasonable and appropriate for the PICU staff to manage plaintiff's pneumonia initially and, after plaintiff failed to respond within 48 hours, to consult infectious disease. Dr. Conway is also of the opinion that the PICU staff appropriately implemented infectious diseases's recommendations which lead to the timely diagnosis and treatment of the Serratia marcesces on or about June 6, 2010 as well as the fungemia on or about June 28, 2010.

Dr. Conway states that there is no basis to support plaintiff's claim that defendants were negligent in failing to recognize the signs and symptoms of meningitis or plaintiff's claim that defendants were negligent in failing to diagnosis and treat an inflammatory and infectious process involving plaintiff's brain or spinal cord. According to Dr. Conway, meningitis is an inflammation of the membranes surrounding one's brain and spinal cord and usually results from a viral infection. Meningitis can also be caused by a bacterial infection, or less commonly, a fungal infection. Definitive diagnosis of meningitis requires an analysis of a patient's cerebrospinal fluid (CSF), which Dr. Conway claims is the gold standard for diagnosis of meningitis. According to Dr. Conway, defendants considered, based upon the June 28, 2010 brain CT, that plaintiff may have had meningitis. That diagnosis, however, was not supported by the history and physical examination findings and NYPH staff documented on numerous occasions that plaintiff did not have any signs of meningitis such as meningismus, headache or photophobia. Moreover, Dr. Conway claims that the lumbar puncture performed of June 30, 2010 was not consistent with meningitis. Dr. Conway also contends that after plaintiff's CSF sample was taken, the results were normal with respect to plaintiff's white blood cell count, red blodd cell count and glucose. Only plaintiff's protein was elevated. Dr. Conway opines that the various antibiotics plaintiff received in the month before the lumbar puncture did not alter the CSF profile or cause the results to be any less reliable. Thus, Dr. Conway claims the NYPH staff reasonably diagnosed plaintiff with GBS and treated him with IVIG therapy.

Dr. Conway also opines that there is no evidence that bacteria from an infection, including meningitis, traveled through plaintiff's bloodstream and into his brain and caused infarcts. Rather, Dr. Conway claims that plaintiff most likely had a pre-existent Moyamoya disease that defendants did not cause.

Defendants also submit and affirmation from a radiologist, Dr. Thomas Naidich. Dr Naidich contends that the spine MRI taken on June 26, 2010 demonstrates disk bulging, loss of hydration, decreased disc height and endplate deformities known as Schmorl's nodes at the T7-T8 level, findings that are consistent with disc degeneration at T7-T8 with compression of the spinal cord. Dr. Naidich claims that there is no evidence of spine infection/inflammation on the MRI. According to Dr. Naidich, the June 28, 2010 amended MRI report clearly states that myelitis, or inflammation of the spinal cord, was not ruled out and, therefore, plaintiff's claim that the differential diagnosis of the spine MRI should have included an infectious/inflammatory process is without merit. Dr. Naidich also opines that the MRI findings are consistent with spinal cord infarct and not infection or inflammation as alleged by plaintiff. According to Dr. Naidich, spinal cord infarction is a rare condition that most frequently results from ischemia. The most

common site of infarction is in the thoracic spinal cord due to the anatomy and reduced blood supply in the region. Dr. Naidich claims that plaintiff's injuries, including paraparesis, bilateral sensory loss and bowel/bladder were caused by a T7-T8 infarction of the spinal cord. Dr. Naidich claims that the etiology of the infarction was likely multifactorial in nature but states that infection/inflammation were not the cause based upon the normal CSF analysis and normal spine MRI.

With respect to the brain CT performed on June 28, 2010, Dr. Naidich contends the scan demonstrates a hyperdensity in the left posterior frontal lobe as well as in the cerebral cortex. Dr. Naidisch claims such findings are consistent with a watershed infarction or stroke as well as cortical laminar necrosis. Dr. Naidich claims that the etiology of the infarction is ischemia and not infection or inflammation and that there is no evidence of meningitis based upon the absence of diffuse white and gray matter injury. Dr. Naidich further claims that the brain CT scan also demonstrates that plaintiff's collateral vessels were already very small consistent with a pre-existing Moyamoya disease.

The spine MRI performed on September 25, 2010 was appropriately interpreted, according to Dr. Naidich, and the findings were stable compared to the June 26, 2010 study. Dr. Naidich claims there is not an increasing destruction at the inferior aspect of T7 and there is no further loss of height or signal change. Again, Dr. Naidich claims the findings are more consistent with a spinal cord infarct and not infection or inflammation as alleged by plaintiff. Dr. Naidich states that infections of the spine, while uncommon, are extremely destructive. Initially, the infection begins near the vertebral endplate where vascular flow is diminished. Once seeded, the entire endplate becomes infected and the infection then spreads into the disc and to the endplate of the adjacent vertebrae. If the infection is untreated, it will gradually erode a large portion of the bone away which may destabilize the spine and compromise the neurologic structures. Thus Dr. Naidich claims that if the etiology of the T7-T8 spinal cord infarction was an undiagnosed and untreated infection, as plaintiff alleges, one would expect to see a drastic difference on the MRIs. Dr. Naidich claims there is no such drastic difference.

Dr. Naidich also opines that the September 25, 2010 brain MRI was properly interpreted and, similar to the June 28, 2010 brain CT, the findings are consistent with a watershed infarction or stroke. Dr. Naidich agrees with plaintiff's neurologist that the watershed brain infarctions were a natural consequence of plaintiff's pre-existing moyamoya disease which was not caused by defendants. According to Dr. Naidich, despite good and appropriate medical care, plaintiff's brain infarctions were inevitable and an undiagnosed and untreated infection did not contribute to plaintiff's brain injury or his associated right arm weakness.

Finally, defendants submit an affidavit from a neurosurgeon, Dr. Gary Steinberg. According to Dr. Steinberg, moyamoya is a chronic, progressive disease characterized by stenosis or occlusion of the bilateral supraclinoid internal carotid arteries along with the development of leptomeningeal collaterals at the base of the brain. The stenotic changes induce the formation of an abnormal vascular network composed of collateral pathways at the base of the brain to compensate for the cerebral ichemia related to the change. The angiography of moyamoya disease shows unique longitudinal changes from the very early stage with minimum stenotic change of the terminal portion of the internal carotid arteries to the final stage with bilateral occlusion of the internal carotid arteries. In the final stage, the entire brain is perfused by the

external carotid system and the vertebrobasilar system. The classical presentation of moyamoya disease is transient ischemic attacks, ischemic strokes and intracranial hemorrhages. The natural history of moyamoya is often progressive and includes recurrent ischemic episodes with neurological and cognitive deterioration. The disease is unresponsive to any medical treatment and surgery aimed at revascularization of the hemisphere either by direct or indirect bypass techniques is the treatment of choice.

Based upon the neuroradiology studies, Dr. Steinberg opines that plaintiff had a pre-existent advanced moyamoya disease, including occlusion of the bilateral supraclinoid internal carotid arteries with severe stenosis involving the bilateral anterior cerebral and middle cerebral arteries together with extensive collateral circulation, all of which are inconsistent with and exclude a secondary moyamoya disease. Dr. Steinberg's further opines that defendants' treatment did not cause plaintiff's moyamoya disease or the resultant watershed infarctions in his brain and spinal cord. Dr. Steinberg claims that the brain infarctions were inevitable and that the etiology of the T7-T8 infarction of the spinal cord was multifactorial in nature and that infection/inflammation, including meningitis, did not cause either the brain or spinal cord infarctions. Specifically, Dr. Steinberg contends that the brain infarctions were a natural consequence of plaintiff's pre-existent moyamoya disease and once the infarctions or strokes occurred, the damage could not be reversed. Dr. Steinberg claims that defendants timely and appropriately performed revascularization surgery on October 10, 2010 to prevent plaintiff from having more strokes. Dr. Steinberg further opines that low pressure, like plaintiff experienced after being re-intubated on June 7, 2010, can lead to strokes in moyamoya patients.

With respect to the spinal cord infarctions, Dr. Steinberg argues that there was likely venous congestion obstructing venous flow. Since plaintiff was obese and on positive pressure ventilation for a long time, it is probable that plaintiff's obesity and need for ventilatory support caused increased intra-abdominal pressure and added another factor, venous stasis, to contribute to the spinal cord infarction. These factors, together with the hypertension plaintiff developed to compensate for his moyamoya disease caused ischemia to the spinal cord at T7-T8 resulting in an infarction. Dr. Steinberg claims that the damage from the spinal cord infarction also could not be reversed and that there was no treatment available to restore plaintiff's motor function.

Defendants argue that these expert opinions satisfy defendants' burden of establishing their entitlement to summary dismissal of plaintiff's medical malpractice claim and that the burden shifts to plaintiff to submit evidentiary proof in admissible form demonstrating the existence of a triable issue of fact. Moreover, defendants argue that their submission establishes that there is no causal connection between any acts or omissions by defendants and the watershed infarction plaintiff suffered in his brain and spinal cord.

In opposition, plaintiff argues that he has raised questions of fact as to whether defendants committed four departures from accepted medical practice in their care and treatment of him. First, plaintiff contends that there are questions of fact as to whether NYPH, through Dr. Pamnani, departed from good and accepted medical practice by failing to delay or cancel the June 1, 2010 surgery in light of plaintiff's preoperative vital signs. Plaintiff argues that whether Dr. Behrman departed from accepted medical standards by failing to familiarize himself with plaintiff's preoperative vital signs and by failing to delay or cancel the June 1, 2010 surgery is another question of fact that must be resolved by a jury. Plaintiff further argues that defendants

departed from good and accepted medical standards post-operatively by performing an extubation of plaintiff when he was hemodynamically unstable and by delaying the re-intubation of plaintiff until June 7, 2010 when plaintiff became critically and almost fatally ill.

In support of these contentions, plaintiff submits an affidavit from Dr. Ronald E. Burt, an anesthesiologist. Dr. Burt opines that defendants departed from good and accepted preoperative evaluation and perioperative care prior to and on the day of plaintiff's surgery. According to Dr. Burt, the purpose of preoperative assessment and intervention is to identify patients with co-morbid conditions that require the anesthesiologist to intervene in order to lower the patient's risk. Hypertension is one such condition and in the case of a young person like plaintiff, should prompt an investigation to determine the causes of the condition. According to Dr. Burt, the very high blood pressure values obtained by defendants on May 14, 2010 and June 1, 2010 prior to the surgery should have mandated a repeat blood pressure and an inquiry into plaintiff's readily available history which would have revealed a long standing hypertension with poor control. Dr. Burt further opines that with a blood pressure reading of higher than 200 diastolic, plaintiff's surgery should have been delayed and effort made to undertake a safe lowering of the blood pressure as well as tests to reveal the cause of the hypertension. Dr. Burt opines that defendants' failure to postpone the surgery, to the determine the cause of the hypertension and to implement a regimen to effectively control the hypertension prior to surgery were departures from good and accepted anesthesia practice.

Dr. Burt also opines, based upon Dr. Berhman's deposition testimony that he was never informed of plaintiff's hypertension on June 1, 2010, that defendants departed from accepted practice because the attending surgeon and anesthesiologist must determine together whether or not to proceed with surgery in the face of markedly abnormal blood pressure. According to Dr. Burt, preoperative abnormal systolic blood pressure is a significant predictor of postoperative morbidity.

Plaintiff also submits an affidavit from a plastic and maxillofacial surgeon, Dr. Derek Steinbacher. Dr. Steinbacher contends that defendants departed from accepted medical practice by proceeding with the elective surgery without investigating the potential causes of the plaintiff's abnormally high blood pressure readings on May 14, 2010 and June 1, 2010. Dr. Steinbacher further contends that steps should have been taken to control plaintiff's blood pressure prior to performing the surgery.

Dr. Anthony Manasia, a critical care medicine specialist, opines that there are several aspects of oral and maxillofacial surgery that influence postoperative care, with one of the most important aspects being the fact that the surgery is performed in and through a patient's airway. Because the surgery is performed through the patient's airway, the postoperative care unit must be constantly aware of the significantly increased risk of airway compromise. Dr. Manasia also contends that edema, bleeding, secretions and the effects of hypotensive anesthesia also require careful monitoring and control during the immediate postoperative period. Dr. Manasia contends that defendants departed from accepted medical practice on June 2, 2010 when plaintiff was extubated while hemodynamically unstable with plaintiff having been hypertensive and tachycardic for a three period immediately prior to the extubation. Dr. Manasia opines that defendants should have stabilized plaintiff and correct the hemodynamic instability prior to extubation.

Dr. Manasia contends that defendant also departed from accepted medical practice by delaying plaintiff's re-intubation until an emergent one was performed on June 7, 2010. According to Dr. Manasia, plaintiff was tachycardic and had uncontrolled blood pressure between June 2, 2010 and June 6, 2010, despite requiring noninvasive positive pressure ventilation. On June 3, 2010 and June 4, 2010 plaintiff was unable to be weaned off oxygen support. On June 5, 2010 plaintiff hallucinated and his hypertension was still uncontrolled. Plaintiff's chest x-rays demonstrated atelactasis in both lungs with signs of effusion if not edema. On June 6, 2010 plaintiff desaturated into the 80s and chest x-rays taken two times demonstrated significant deterioration. Dr. Manasia contends that the BiPap, suctioning, diuresis, bronchodilator therapy, pulmonary toilet, chest physiotherapy and deep breathing exercises used by defendants had failed to the point where plaintiff was severely ill. According to Dr. Manasia, intubation was necessary and mandatory as of the morning of June 6, 2010, at the latest, and that defendants' delay was a departure from good and accepted practice. Dr. Manasia contends that the mismanagement of the critical care team between June 1, 2010 and June 8, 2010 was a competent producing cause of plaintiff's hypoxia, severe hypotensive events and infection, all of which led to plaintiff's neurologic compromise as documented by the thoracic cord injury and the infarctions in plaintiff's brain.

Dr. Jordan Haber, a radiologist, opines that chest x-rays taken June 1, 2010 through June 7, 2010 demonstrate that the overall appearance of the cardiac silhouette is most consistent with left ventricular hypertrophy which is a radiographic finding consistent with hypertension. Dr. Haber also contends that the chest x-rays document a worsening pulmonary condition with the June 4, 2010 and June 5, 2010 x-rays revealing bilateral findings consistent with infiltrate and/or atelectasis at the left base with increasing prominence of the markings throughout the left thorax as well as residual infiltrate in the right base. Dr. Haber further claims that the x-rays performed on June 6, 2010 demonstrated a marked change in radiographic appearance. Specifically, when compared to the x-ray taken in June 5, 2010, the x-ray taken on June 6, 2010 at 4:53 a.m. demonstrates evidence of considerable increase in the pulmonary vascular congestion bilaterally. The second x-ray taken on June 6, 2010 at 10:20 a.m., when compared to the x-ray taken early in the day, demonstrates a further increase in the subcutaneous emphysema, a definite pneumomediastinum, increasing infiltrate versus ateletasis at both lung basis. Dr. Haber contends that the marked deterioration over a relatively short period of time combined with the progression of findings from the previous days required immediate contact with a clinician to consider appropriate intervention.

With respect to the thoracic spine, Dr. Haber contends that the thoracic spine was captured on the June 26, 2010 MRIs of plaintiff's cervical and lumbar spine but that there was not a separate study taken of the thoracic spine until September 25, 2010. The June 26, 2010 radiological report of the thoracic spine was read as negative and noted a small disc protrusion at T7-T8 with no cord compression. Dr. Haber contends that this diagnosis is incorrect. According to Dr. Haber, the June 26, 2010 MRI is not an optimum study. Dr. Haber contends that the pathology demonstrated at the T7-T8 endplates, disc and spinal cord required further study specifically addressing the thoracic spine. According to Dr. Haber, examination of the sagittal sequences demonstrates evidence of changes of the adjacent endplates with cortical thinning. Dr. Haber also claims that there is evidence of an extradural impression of the thoracic cord at the

same level, that the T7-T8 disc demonstrates loss of hydration and that its margins are ill defined. While conceding that these findings could represent a disc herniation at T7-T8, Dr. Haber contends that the possibility of an inflammatory process with associated discitis should be considered. Further, a sagittal T1 sequence demonstrates an oblique density of the thoracic spinal cord just posterior at T7-T8. Dr. Haber concurs with July 25, 2010 addendum to the June 26, 2010 radiological report that these findings are very suspicious for transverse myelitis but contends that the edema in the cord at T7-T8 could also be consistent with watershed infarction and that watershed infarction should have been within the differential diagnosis of the study.

Dr. Haber further contends that the September 25, 2010 dedicated study of plaintiff's thoracic spine demonstrates evidence of irregularity at the inferior portion of the seventh thoracic vertebral body above the level of the endplate; irregularity and marked thinning of the endplates at T7-T8; loss of hydration at this disc and evidence of signal changes at the cord as noted on other sequences at the same level. Dr. Haber claims that the changes in pathology demonstrated on the September 25, 2010, when compared to the June 26, 2010 study, cannot be solely credited to differences in technique.

With respect the studies of plaintiff's brain, Dr. Haber concurs with defendants' interpretation of the June 28, 2010 brain CT scan as being consistent with meningeal irritation and the possibility of an associated meningio-encephalitis or some encephalo-vasculitis. Dr. Haber contends that the September 26, 2010 brain MRI demonstrates interval development of bilateral frontal-parietal white matter encephalomalacia with overall appearance consistent with watershed infarctions; hemorrhagic infarctions at the right lentiform nucleus; evolving infarct versus possible mycotic aneurysm at right frontoparietal white matter. Dr. Haber claims that it is clear that the June 28, 2010 CT scan and September 25, 2010 MRI are dissimilar in their appearance, as indicated by NYPH's radiologist, Dr. Gupta. Dr. Haber contends that the new pathology demonstrated in the September 25, 2010 MRI cannot be explained by differences in the study type, i.e., CT scan versus MRI. Dr. Haber further argues that the diagnosis of defendants' experts, based upon the angiography performed on October 6, 2010, that a moyamoya network existed prior to the June 1, 2010 operation is not supported by the previous studies which instead demonstrate progression in brain pathology between June 28, 2010 and September 25, 2010.

Plaintiff's expert neurologist, Dr. Jesse Weinberger, who examined plaintiff on August 29, 2013, opines that a watershed infarction in the mid-thoracic spine occurs when there is reduced blood supply either from the anterior spinal arteries or the large radicular artery located at L1/2. In plaintiff's case, the vertebral and basilar arteries that supply blood to the posterior part of the brain were also supplying collateral circulation to the anterior part of the brain to bypass the internal carotid occlusions from the moyamoya. According to Dr. Weinberger, during the period of hypotension sustained between June 7, 2010 and June 17, 2010, a watershed infarction occurred in both plaintiff's left cerebral hemisphere and at the T7/T8 level of the spinal cord, resulting in paraplegia of the lower extremities because of insufficient blood supply to the spinal cord from the anterior spinal arteries. Dr. Weinberger contends that the watershed infarction in the spinal cord was secondary to the hypotension that occurred in the presence of a moyamoya syndrome with bilateral carotid artery occlusions. According to Dr. Weinberger, while cerebral infarctions can be a natural consequence of moyamoya syndrome without

hypotension, a watershed infarction in the spinal cord at T7/T8 would not have occurred had plaintiff been intubated for respiratory failure prior to the onset of acute respiratory distress of June 7, 2010 and the hypotension avoided. Dr. Weinberger concedes that it is debatable whether the vascular circulation in plaintiff's brain as exhibited in the October 2010 studies was acquired or secondary moyamoya or moyamoya disease that existed in plaintiff prior to the June 1, 2010 surgery but contends that even if plaintiff did have a moyamoya type anomaly, plaintiff was completely asymptomatic prior to the surgery. Dr. Weinberger opines that in this case the severe hypoxia, the severe hypertension and hypotension that occurred post-operatively, the severe blood borne infection and severe respiratory distress were competent producing causes of the infarctions in the plaintiff's brain and the paralysis in plaintiff's thoracic spine.

Finally, Dr. Wouter I. Schievink, a neurological surgeon, opines that even if plaintiff had preexisting moyamoya disease, he would have been categorized as asymptomatic since he had no history of headaches, ischemic attacks or any other symptoms associated with the chronic progressive nature of moyamoya disease. Dr. Schievink argues that Dr. Steinberg's opinion that plaintiff's brain infarctions were inevitable is not supported by medical literature or the studies in this case. According to Dr. Schievink, there is no way to determine from the October 2010 angiography that moyamoya disease was or was not preexistent to the insults to plaintiff's brain that occurred after June 1, 2010. Dr. Schievink contends that when plaintiff's condition prior to the operation, the changes in the radiographic images of the brain between June 28 2010 and September and October 2010 and the varying interpretations offered by the radiologists are taken into account, there is insufficient evidence to opine with a reasonable degree of medical certainty that the pathology exhibited in the October 11, 2010 angiography existed prior to June 1, 2010.

In an action premised upon medical malpractice, a defendant doctor establishes *prima facie* entitlement to summary judgment when he/she establishes that in treating the plaintiff there was no departure from good and accepted medical practice or that any departure was not the proximate cause of the injuries alleged (*Thurston v Interfaith Med. Ctr.*, 66 AD3d 999, 1001 [2d 2009]; *Myers v Ferrara*, 56 AD3d 78, 83 [2d 2008]; *Germaine v Yu*, 49 AD3d 685 [2d Dept 2008]; *Rebozo v Wilen*, 41 AD3d 457, 458 [2d Dept 2007]; *Williams v Sahay*, 12 AD3d 366, 368 [2d Dept 2004]). With respect to opinion evidence, it is well settled that expert testimony must be based on facts in the record or personally known to the witness, and that an expert cannot reach a conclusion by assuming material facts not supported by record evidence (*Cassano v Hagstrom*, 5 NY2d 643, 646, 159 NE2d 348, 187 NYS2d 1 [1959]; *Gomez v New York City Hous. Auth.*, 217 AD2d 110, 117 [1st Dept 1995]; *Matter of Aetna Cas. & Sur. Co. v Barile*, 86 AD2d 362, 364-365 [1st Dept 1982]). Thus, a defendant in a medical malpractice action who, in support of a motion for summary judgment, submits conclusory medical affidavits or affirmations, fails to establish *prima facie* entitlement to summary judgment (*Winegrad v New York Univ. Med. Ctr.*, 64 NY2d 851, 853, 476 NE2d 642, 487 NYS2d 316 [1985]; *Cregan v Sachs*, 65 AD3d 101, 108 [1st Dept 2009]; *Wasserman v Carella*, 307 AD2d 225, 226 [1st Dept 2003]). Further, medical expert affidavits or affirmations, submitted by a defendant, which fail to address the essential factual allegations in the plaintiff's complaint or bill of particulars fail to establish prima facie entitlement to summary judgment as a matter of law (*Cregan*, 65 AD3d at 108; *Wasserman* 307 AD2d at 226).

Once the defendant meets her burden of establishing prima facie entitlement to summary

judgment, it is incumbent on the plaintiff, if summary judgment is to be averted, to rebut the defendant's prima facie showing (*Alvarez v Prospect Hosp.*, 68 NY2d 320, 324, 501 NE2d 572, 508 NYS2d 923 [1986]). The plaintiff must rebut defendant's prima facie showing without "[g]eneral allegations of medical malpractice, merely conclusory and unsupported by competent evidence" (*id.* at 325). Specifically, to avert summary judgment, the plaintiff must demonstrate that the defendant did in fact commit malpractice and that the malpractice was the proximate cause of the plaintiff's injuries (*Coronel v New York City Health and Hosp. Corp.*, 47 AD3d 456 [1st Dept 2008]; (*Koeppel v Park*, 228 AD2d 288, 289 [1st Dept 1996]). In order to meet the required burden, the plaintiff must submit an affidavit from a medical doctor attesting that the defendant departed from accepted medical practice and that the departure was the proximate cause of the injuries alleged (*Thurston* 66 AD3d at 1001; *Myers* 56 AD3d at 84; *Rebozo* 41 AD3d at 458).

Defendants met their initial burden of establishing their *prima facie* entitlement to judgment as a matter of law on plaintiff's medical malpractice claim through their expert affidavits/affirmations establishing that they did not deviate from accepted standards of medical practice and that their treatment and care of plaintiff was not the proximate cause of plaintiff's injuries. The burden therefore shifts to plaintiff to raise a triable issue of fact, which plaintiff does. Here, the non-conclusory, non-speculative expert opinions offered by plaintiff conflict with the opinions offered by defendants's experts and raise triable issues of fact as to whether defendants departed from accepted medical standards by failing to cancel or delay the June 1, 2010 elective procedure in light of plaintiff's abnormally high pre-operative blood pressures, by extubating plaintiff when they did and by waiting until June 7, 2010 to re-intubate plaintiff. It is not enough, however, for plaintiff to raise issues of fact as to whether defendants deviated from good and accepted medical practice. Plaintiff must also rebut defendants' *prima facie* showing that their allegedly negligent acts and/or omissions did not proximately cause plaintiff's injuries.

Plaintiff's expert anesthesiologist, Dr. Burt, contends that had defendants' canceled or delayed the surgery in order to determine the cause of and treat plaintiff's preoperative hypertension, none of the post-operative respiratory complications would have occurred. Plaintiff's expert also contends that plaintiff's post-operative pulmonary and respiratory complications were foreseeable in light of plaintiff's morbid obesity, his pre-operative hypertension and by the nature of the maxillofacial upper airway surgery plaintiff was to undergo. In contrast, defendants' experts contends that plaintiff's post-operative injuries, including the watershed infarctions, were not proximately caused by Dr. Behrman or the NYPH staff because plaintiff's pulmonary and respiratory complications could not have been prevented or even anticipated based upon plaintiff's history and physical examinations prior to the June 1, 2010 surgery.

With respect to the alleged post-operative departures, defendants contend that plaintiff's brain infarcts were the natural and inevitable consequence of pre-existent moyamoya disease, not a secondary moyamoya disease, and that the etiology of the spinal cord infarcts was multifactorial and included plaintiff's obesity and his need for ventilatory support, both of which led to venous stasis. Defendants contends that these factors, together with the hypertension plaintiff developed to compensate for his pre-existent moyamoya disease, which defendants did not cause, resulted in ischemia to the spinal cord at T7-T8 and an infarction. In contrast,

plaintiff's experts contend that defendants' experts' diagnosis of a pre-existent moyamoya network is not supported by the studies performed on plaintiff's brain between June 28, 2010 and September 25, 2010 and cannot be determined within a reasonable degree of medical certainty from the October 11, 2010 angiography. Plaintiff's experts argue that the watershed spinal infraction was secondary to the hypotension that occurred in the presence of a moyamoya syndrome with bilateral carotid artery occlusions and that had plaintiff been re-intubated prior to the onset of acute respiratory distress on June 7, 2010 the hypotension would have been avoided. Plaintiff's experts also contend that defendants' experts' diagnosis of a pre-existent moyamoya network is not supported by the studies performed on plaintiff's brain between June 28, 2010 and September 25, 2010 and that it cannot be determined within a reasonable degree of medical certainty from an angiography performed more than 4 months after plaintiff's surgery that plaintiff's moyamoya disease was or was not pre-existent. Only a jury can resolve the questions of whether plaintiff's moyamoya disease was pre-existent, whether his brain infarcts were the natural results of pre-existent moyamoya and whether his spinal cord infarcts could have been avoided if plaintiff had been re-intubated prior to June 7, 2010. It is well settled that summary judgment is not appropriate in a medical malpractice action where the parties adduce conflicting medical expert opinions since such credibility issues can only be resolved by a jury (*Barnett v Fashakin*, 85 AD3d 832 [2d Dept 2011]; *Frye v Montefiore Med. Ctr.*, 70 AD3d 15 [1st Dept 2009]). Plaintiff's experts have proffered a sufficient nexus between the pre-operative and post-operative malpractice allegedly committed by defendants and plaintiff's injuries and, therefore, defendants' motion for summary judgment dismissing plaintiff's medical malpractice claim is denied.

Informed Consent

In moving to dismiss plaintiff's informed consent claim, Dr. Behrman avers that he obtained plaintiff's informed consent by discussing with plaintiff the potential risks, benefits and complications of undergoing a combined orthodontic and orthognathic treatment plan to correct plaintiff's facial skeletal deformity. Dr. Behrman further claims that he reviewed the goals of the combined treatment plan with plaintiff and his parents and, utilizing various x-rays and models, discussed various treatment options and alternatives. According to Dr. Behrman, plaintiff was advised that the proposed surgery was elective and was advised of the possible problems arising from the surgery, including malunion/non-union and secondary fixation, dental healing issues including devitalization and loss, peritoneal issues, hyp/para/ anesthesia of the cheeks, lips, chin, teeth, gingiva, tongue, etc. Dr. Behrman claims that he did not discuss the risks of possible brain damage or spinal cord infarcts with plaintiff because such risks are not known risks of the proposed procedure. Thus, Dr. Behrman claims it was not the standard of care to discuss such risks. Behrman also claims that it is not the standard of care to discuss the risk of pulmonary problems post-surgery or that a patient like plaintiff could develop pneumonia. Dr. Behrman contends that he discussed all of the foreseeable possible risks associated with the surgery that a reasonable dentist in his position would discuss and that a patient in the position of plaintiff would have consented to the procedure.

Dr. DiCapau opines that procedure-related factors are more important than patient-related factors for predicting post-operative pulmonary complications and that most procedure-

related risks are not modifiable. Therefore, according to Dr. DiCapua, in light of the pre-operative history and physical examinations, there was no indication for Dr. Pamnani to advise plaintiff that he was at increased risk or to obtain from plaintiff specific consent relative to the potential risks of post-operative pulmonary complications. Dr. DiCapua contends that Drs. Behrman and Pamnani explained all of the reasonably foreseeable risks from an anesthesia standpoint that a reasonable practitioner would explain taking into account plaintiff's preexisting physical condition. Dr. DiCapua further opines that, based upon the history provided by plaintiff and the preoperative physical examination, a reasonable practitioner would not explain to a patient such as plaintiff that he was at increased risk for post operative respiratory and hemodynamic complications and even if such information was provided, the information would not have caused a reasonably prudent person in plaintiff's position to refuse to consent to the proposed procedure.

In opposition, Dr. Burt, the anesthesiologist, opines that plaintiff did not receive a proper informed consent and as a result was deprived of an opportunity to make an informed decision regarding the risks and benefits of the elective jaw surgery. Specifically, Dr. Burt contends that, based upon the entirety of plaintiff's presentation, including plaintiff's probable obstructive sleep apnea, his severe uncontrolled systemic hypertension, the fact that plaintiff was to undergo maxillofacial upper airway surgery, and plaintiff's morbid obesity, respiratory and hemodynamic complications should have been anticipated by Dr. Pamnani. According to Dr. Burt, Dr. Pamnani, did not give or obtain informed consent because he did not advise plaintiff of the foreseeable postoperative complications. Dr. Burt also opines that a reasonably prudent person would have chosen to delay the elective procedure in order to first determine the cause of the hypertension.

Dr. Steinbacher, the maxillofacial surgeon, similarly opines that plaintiff should have been informed by Dr. Behrman of the increased risk of adverse effects of the orthognathic procedure associated with plaintiff's obesity, his Mallampati IV airway architecture, his hypertension and his elevated white blood cell count and that Dr. Behrman's failure to discuss the increased risks with plaintiff prior to the June 1, 2010 surgery was a departure from good and accepted medical practice. Dr. Steinbacher further contends that a reasonable person could have decided to defer the elective surgery until his blood pressure was stable or forgo the surgery entirely.

Plaintiff's mother, Linda Shulman, avers that she accompanied plaintiff to his preoperative visits with Dr. Behrman and that Dr. Behrman never discussed the risk of anesthesia as it related to postoperative airway difficulties, never discussed the increased risk of airway compromise from edema or bleeding, and never discussed plaintiff's obesity or sleep apnea. Mrs. Shulman also contends that hypertension, including the blood pressure readings on May 14, 2010 and June 1, 2010, were never discussed with her or plaintiff by Dr. Behrman or anyone associated with NYPH. Mrs. Shulman claims that since plaintiff had been worked up for hypertension when he was 15 years old the surgery would have been cancelled if she had been informed of plaintiff's blood pressure levels.

To prevail on a lack of informed consent claim, a plaintiff must establish, via expert medical evidence, that defendant failed to disclose material risks, benefits and alternatives to the medical procedure, that a reasonably prudent person in plaintiff's circumstances, having been so

informed, would not have undergone such procedure, and that lack of informed consent was the proximate cause of his injuries (*Balzola v Giese*, 107 AD3d 587 [1st Dept 2013]). Defendants have failed to establish that they disclosed all of the material risks of the surgical procedure, in particular, the post-operative risks for pulmonary complications. While Dr. Behrman contends that he properly advised plaintiff of the reasonably foreseeable risks and Dr. DiCapua contends that procedure-related factors, rather than patient- related factors are more important for predicting post-operative pulmonary complications, Dr. Conway, defendants' pediatric critical care medicine specialist, clearly avers that post-operative pulmonary complications can and do occur more frequently in obese patients, like plaintiff, following major surgery, such as the procedure plaintiff underwent. Therefore, because defendants' submission contains contradictory expert opinions regarding the foreseeability of the post-operative pulmonary complications experienced by plaintiff, defendants have failed to establish that plaintiff was properly informed of the major surgical procedure and, more importantly, the reasonably foreseeable risks of the procedure in light of his documented obesity (*cf Smith v Cattani*, 2 AD3d 259 [1st Dept 2003]) and the court need not address the sufficiency of plaintiff's opposition papers on this issue.

In accordance with the foregoing, it is hereby

ORDERED that defendants' motion for summary judgment is denied; and it is further

ORDERED that plaintiff is to serve a copy of this order, with notice of entry, upon defendants within 20 days of entry.

George J. Silver, J.S.C.

Dated: 11/17/15
New York County

GEORGE J. SILVER