

Chapter 1 : Publications Authored by John Soper | PubFacts

Gestational trophoblastic disease is a spectrum of diseases affecting young women, which can usually be treated without loss of reproductive capacity. From the Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Duke University Medical Center, Durham, North Carolina.

Previous Section Next Section Introduction Hydatidiform moles and malignant gestational trophoblastic neoplasia GTN are recognized as relatively uncommon, but potentially devastating, diseases occurring in women of reproductive age. Primary management of hydatidiform moles includes surgical evacuation coupled with close monitoring of serial human chorionic gonadotropin hCG values. In patients with malignant GTN, surgery was initially recognized as effective only in the treatment of a few women with nonmetastatic choriocarcinoma or postmolar GTN. Malignant GTN was usually a rapidly progressing lethal malignancy until Li et al. Although surgery has assumed a lesser role in the management of malignant GTN, selected surgical procedures remain important in the treatment of individual patients. Radiation therapy has been used to control disease in the central nervous system CNS , liver, and rarely, at other sites. Various other methods include medical induction of labor, hysterotomy, and hysterectomy. Previous Section Next Section Induction of Labor Induction of labor for molar pregnancy termination can be achieved by the use of prostaglandins with or without the addition of oxytocin. Laminaria may be used to assist in cervical ripening. There has been reluctance to recommend labor induction for molar evacuation because of the theoretical risk for trophoblastic deportation and embolization during uterine contractions that might result in distant metastasis. Tidy and associates retrospectively compared different methods of molar evacuation, reporting that medical induction was associated with higher rates of chemotherapy for postmolar GTN [4]. Additionally, Schlaerth et al. However, when Flam et al. The vertical myometrial incision used to evacuate the mole usually results in operative delivery for subsequent pregnancies. This is an important consideration because the majority of women with hydatidiform moles are in the prime reproductive age group [6]. In a report of patients with hydatidiform moles, Curry et al. Because of the concerns for greater morbidity and a higher incidence of postmolar GTN, induction of labor and abdominal hysterotomy are rarely used for the primary evacuation of hydatidiform moles [6]. Pre-evacuation insertion of cervical laminaria may facilitate cervical dilatation in a medically stable patient. The majority of the molar tissue is removed by simply rotating the suction cannula and allowing the uterus to involute during evacuation of the uterine contents. The surgeon can assist in uterine involution by gentle uterine massage during evacuation, which also allows assessment of uterine size during the curettage. The use of ergotamine in the form of methergine 0. Routine second and third evacuations were often performed in the past, but are discouraged because they do not appear to decrease the risk for postmolar GTN [9] and may result in perforation or uterine senechia. In their review of pathologic specimens, only one pathologic feature, fibrinoid deposits, identified in sharp curettings was associated with the incidence of persistent GTN. Although 12 of the 25 patients who attained remission without chemotherapy had fibrinoid deposits in the sharp curettage specimen, they were identified in only one of the eight patients who developed persistent GTN. Patients with a markedly enlarged uterus should have large-bore i. Central hemodynamic monitoring and provision for immediate laparotomy or laparoscopy during the procedure should also be available [6]. Rarely, perforation occurs in a region of deep myometrial penetration by invasive mole or there is active bleeding at the perforation site. Surgical management in these cases should be individualized on the basis of the site and extent of perforation. Repair or resection of the perforation site is usually attempted, but hysterectomy is often required in this setting [6]. Uterine artery embolization is another technique that has been used in cases of severe hemorrhage to avoid hysterectomy after excluding uterine perforation as a cause of bleeding. Previous Section Next Section Hysterectomy For women who have completed their families and have risk factors for postmolar GTN, hysterectomy offers the advantage of simultaneous evacuation and sterilization [6]. Because malignant sequelae are more prone to occur in older age groupsâ€” Hysterectomy

decreases the overall risk for postmolar GTN to approximately 3. All patients should be chemically monitored after hysterectomy because it does not completely eliminate the potential for postmolar GTN [8 , 15]. They are caused by elevated hCG levels [17]. Other signs of ovarian hyperstimulation, such as pleural effusion and ascites, have been documented. The resolution of theca lutein cysts lags behind the drop in hCG values. If these are recognized at the time of surgical exploration, aspiration of prominent cysts can be performed. Hysterectomy may be incorporated into the primary or secondary management of women with GTN [6 , 18 , 19]. Patients with high-risk GTN often require surgery to address disease complications [6 , 19]. Surgical procedures to extirpate sites of disease are often performed during a course of chemotherapy to minimize the possibility of inducing metastases by surgical manipulation of tissues. In contrast, Pezeshki and colleagues evaluated the results of a second uterine evacuation for a presumptive diagnosis of GTN during follow-up in patients after molar evacuation [23]. In a study by van Trommel et al. Schlaerth and associates reported an 8. Hysterectomy, however, continues to play a role in the management of women with malignant GTN. All 32 women treated with primary hysterectomy combined with single-agent chemotherapy regimens entered sustained remission. When compared with similar patients who had low-risk disease and were treated with chemotherapy alone, patients receiving primary hysterectomy had a shorter duration and lower total dose of chemotherapy, equivalent to one cycle of chemotherapy [19]. In another retrospective study, the total dose of etoposide used for low-risk GTN patients was lower among those with nonmetastatic disease treated with adjuvant hysterectomy than among those treated with chemotherapy alone, again roughly equivalent to a single cycle of chemotherapy. This effect was not observed among the patients with low-risk metastatic disease [25]. Therefore, primary hysterectomy is a reasonable adjunct to chemotherapy for patients with low-risk GTN who do not desire to preserve their childbearing capacity [11]. Additionally, hysterectomy can be employed in patients with nonmetastatic or low-risk metastatic GTN who become resistant to primary chemotherapy, in order to achieve remission without requiring multiagent chemotherapy. As reported by Hammond et al. Primary or secondary hysterectomy, however, was not effective in reducing chemotherapy requirements or improving cure rates for women with high-risk metastatic GTN [19]. This likely reflects a greater extrauterine disease burden in these women. Salvage hysterectomy is an option in producing remission in most patients with chemoresistant nonmetastatic or low-risk metastatic disease [19 , 26 , 27]. Salvage hysterectomy may be integrated into the treatment of selected patients with high-risk metastatic GTN who have a small extrauterine tumor burden. Patients with recurrent GTN often present with limited extrauterine dissemination and may benefit from salvage hysterectomy [28]. Hysterectomy for GTN treatment can prove very difficult. The uterine vasculature may be very prominent, and enlargement of the uterine venous plexus may lead to hemorrhage during ureteric dissection, particularly in cases in which the tumor has spread beyond the uterus into the parametrium. Temporary ligation of the hypogastric arteries may be helpful in reducing intraoperative hemorrhage [29]. Emergency hysterectomies have been reported in cases of intra-abdominal bleeding or severe vaginal bleeding [30]. In a series of 18 total abdominal hysterectomies, four were performed emergently as a result of uterine perforation resulting in massive hemoperitoneum [31]. Additionally, it is important to emphasize the need for a detailed intraoperative examination after completion of the hysterectomy to exclude or identify any metastatic lesions. In contrast to gestational choriocarcinoma or postmolar GTN, hysterectomy plays an essential role in the management of placental site trophoblastic tumor PSTT because it is much more resistant to methotrexate and dactinomycin chemotherapy. Most patients present with nonmetastatic PSTT. Hysterectomy alone is curative in approximately two thirds of patients [32 , 33]. Conversely, hysterectomy is not as beneficial in the management of PSTT patients with widespread metastases. Previous Section Next Section Conservative Myometrial Resection Conservative myometrial resection combined with uterine reconstruction might be considered in highly selected patients with nonmetastatic GTN who wish to avoid hysterectomy [34 - 36]. All patients had lesions localized in the myometrium, defined by pelvic angiography, ultrasound, and computerized tomography techniques. Seven patients required chemotherapy after surgery. They observed that the reproductive performance of patients

undergoing myometrial resection was similar to that of patients treated with chemotherapy alone. Any patient considered for this procedure should be carefully evaluated for systemic metastases, and the uterine lesion should be localized by imaging and hysteroscopy. Intraoperative frozen sections should be used to assess surgical margins. Their indications for selecting patients for conservative myometrial resections were: They reported that postsurgical chemotherapy might be avoided or reduced if these criteria were fulfilled [34]. During a hysterectomy or myometrial resection for any of the above indications, ovarian removal is not usually required, because GTN rarely metastasizes to the ovaries and these tumors are not hormonally influenced [6]. Previous Section Next Section Conservative Management of Uterine Rupture Estrella and Soriano-Estrella [37] reported on two patients with low-risk GTN managed by primary repair of uterine rupture and subsequent chemotherapy, with a documented complete response in one patient, whereas the other was lost to follow-up. Previous Section Next Section Pulmonary Resection The most frequently employed surgical procedure for extirpation of extrauterine metastases of GTN is thoracotomy with pulmonary wedge resection. Although this can safely be performed in conjunction with chemotherapy, it is not necessary to resect lung metastases in the majority of patients [6]. Resection of pulmonary nodules in highly selected patients with drug-resistant disease may successfully induce remission after excluding active disease elsewhere [6]. Highly selected patients will require more than one pulmonary resection during the course of treatment in order to achieve a durable remission [26]. Remission was achieved in 14 of their 15 patients who met the above criteria [38]. The key factors for a successful outcome in managing these patients are early diagnosis and aggressive therapy. These lesions tend to be highly vascular and have a tendency for central necrosis and hemorrhage. Early deaths are caused by acute hemorrhage, with acute neurological deterioration very early in the course of treatment [39 , 40]. Any woman of reproductive age diagnosed with brain metastasis or cerebral hemorrhage should be screened for GTN with a serum hCG test. Tissue confirmation is not necessary for the diagnosis of brain metastasis [6]. Craniotomy has usually been used only to prevent acute deterioration [19]. Others have confirmed the feasibility of this approach [43]. Intrathecal methotrexate was not used in that series [39]. These reports underscore the value of multiagent chemotherapy and multimodality therapy in the management of metastatic GTN to the brain, using different approaches to avoid early mortality from the CNS lesions. In patients with drug-resistant brain lesions, it is of vital importance to exclude active disease elsewhere prior to attempting surgical resection because craniotomy in these instances is rarely effective [6]. Soper and associates described eight patients with high-risk clinical factors treated for renal metastasis of GTN, all of whom had pulmonary metastasis [44]. Four patients additionally had CNS disease. Combination chemotherapy, including methotrexate, dactinomycin, and chlorambucil, was given to all patients. Five received etoposide-containing regimens as salvage therapy. None received renal irradiation and five underwent nephrectomies. Three patients in that series survived. All had limited metastatic disease elsewhere [44].

Chapter 2 : John T. Soper, MD - UNC Health Care

Editor Information. 2. Robert A. Ross Distinguished Professor and Chair, Department of Obstetrics and Gynecology, University of North Carolina School of Medicine, Chapel Hill, NC, USA.

Chapter 3 : Gestational trophoblastic disease | Read by QxMD

TY - JOUR. T1 - Gestational trophoblastic disease. AU - Soper,John T. PY - /7. Y1 - /7. N2 - This review summarizes the primary management of molar pregnancies, surveillance after evacuation, and the evaluation and management of malignant gestational trophoblastic neoplasia (GTN).

Chapter 4 : Dr. John Soper - Gynecologic Oncology - Chapel Hill, NC

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John T. Soper, MD is affiliated with UNC Health Care and specializes in Obstetrics and Gynecology and Cancer in Chapel Hill, NC, Raleigh, NC, and Chapel Hill, NC.

Chapter 5 : The Role of Surgery and Radiation Therapy in the Management of Gestational Trophoblastic Disease

Role of surgery and radiation therapy in the management of gestational trophoblastic disease. John T Soper. Pages 1-10. Download PDF. Article preview.

Chapter 6 : Gestational trophoblastic disease – University of North Carolina at Chapel Hill

Gestational trophoblastic disease comprises a spectrum of interrelated conditions originating from the placenta. Other terms often used to refer to these conditions include gestational trophoblastic neoplasia and gestational trophoblastic tumor.

Chapter 7 : Gestational Trophoblastic Disease – University of North Carolina at Chapel Hill

The Role of Surgery and Radiation Therapy in the Management of Gestational Trophoblastic Disease Rabbie K. Hanna and John T. Soper The Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of North Carolina, Chapel Hill, North Carolina, USA.

Chapter 8 : Gestational Trophoblastic Disease

The Role of Surgery and Radiation Therapy in the Management of Gestational Trophoblastic Disease. John T. Soper: None In contrast to gestational.